

Energy Information Administration Office of Oil and Gas

**U.S.** Department of Energy



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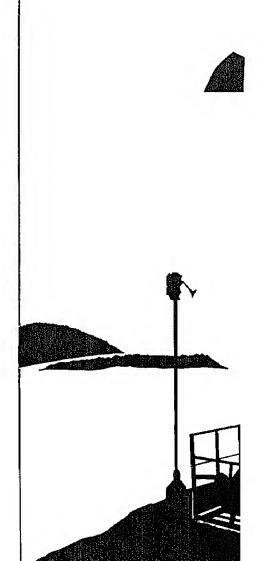


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# Petroleum Supply Monthly



Energy Information Administration Office of Oil and Gas **U.S. Department of Energy** 



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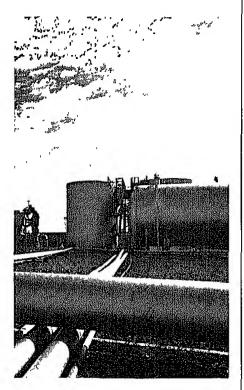
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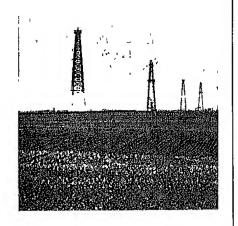
## Contents

Summary Statistics Tables July 1982

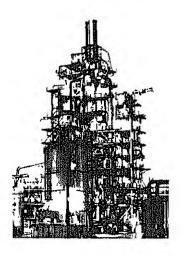
Detailed Statistics Tables July 1982



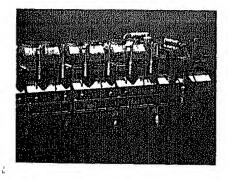
Petroleum Focus Summary Statistics Detailed Statistics Glossary Explanatory Notes.	17 41 3-1
Crude Oil and Petroleum Products Overview Crude Oil Supply and Disposition Finished Motor Gasoline Supply and Disposition Distillate Fuel Oil Supply and Disposition Residual Fuel Oil Supply and Disposition Liquefied Petroleum Gases and Ethane Supply and Disposition Other Petroleum Products Supply and Disposition Imports of Crude Oil and Petroleum Products from OPEC Sources Imports of Crude Oil and Petroleum Products from Non-OPEC Sources Sources	18 22 26 27 32 38 36 37 38
National Statistics Table 1. U.S. Petroleum Balance Table 2. Supply and Disposition of Crude Oil and Petroleum Products Table 3. Year-to-Date Supply and Disposition of Crude Oil and Petroleum Products Table 4. Daily Average Supply and Disposition of Crude Oil and Petroleum Products Table 5. Year-to-Date Daily Average Supply and Disposition of Crude Oil and Petroleum Products	48 44 45 46 47
Supply and Disposition of Crude Oil and Petroleum Products by PAD Districts Table 6. PAD District I Table 7. PAD District II Table 8. PAD District III Table 9. PAD District IV Table 10. PAD District V	48 49 50 51 52
Production of Crude Oil and Lease Condensate Table 11. Production by PAD District and State Table 12. Offshore Production by State Table 13. Production of Lease Condensate by State	54
Natural Gas Processing Table 14. Natural Gas Processing Plant Production of Petroleum Products by PAD District	58
Refinery Operations by PAD District Table 15. Refinery Input of Crude Oil and Petroleum Products Table 16. Refinery Production of Petroleum Products Table 17. Percent Refinery Yield of Petroleum Products Table 18. Refinery Receipts of Crude Oil Table 19. Fuels Consumed at Refineries	56 57 58 59
Imports and Exports of Crude Oil and Petroleum Products Table 20. Imports by PAD District Table 21. Imports by Source and PAD District Table 22. Exports by PAD District Table 23. Exports by Destination	60 61 68



Figures

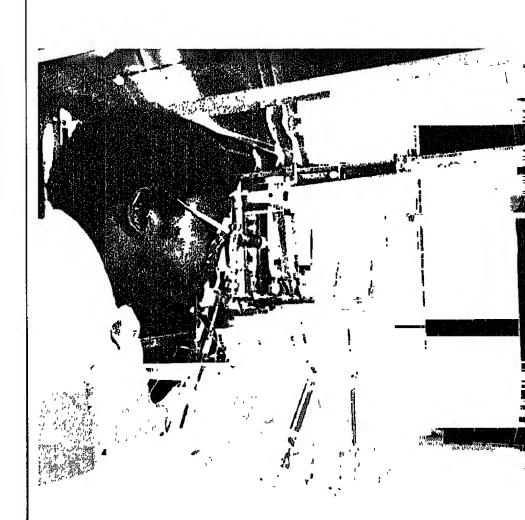


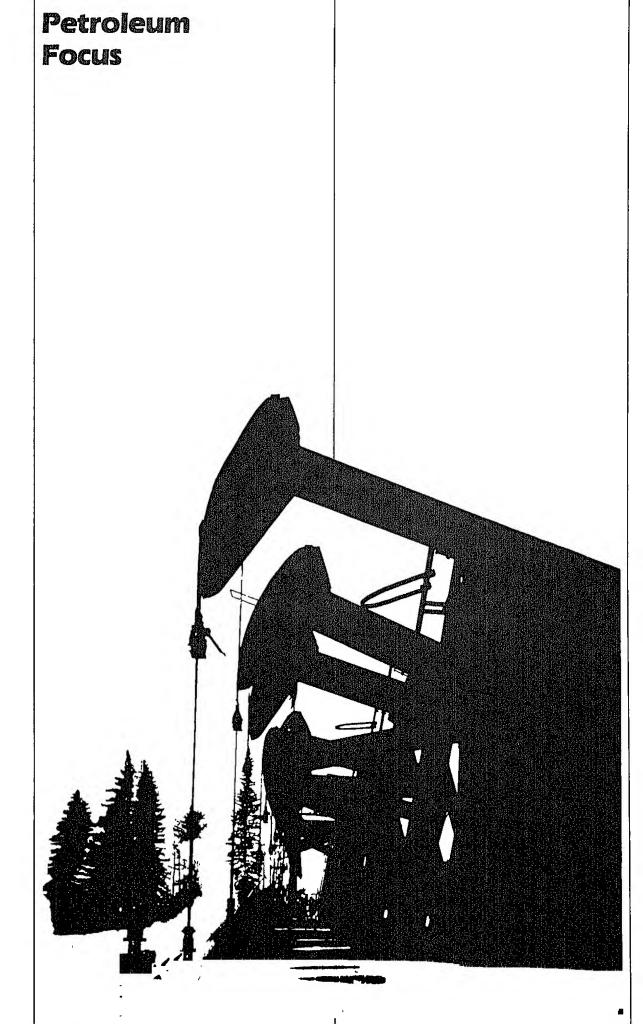
Glossary Explanatory Notes



Stocks Table 24. Stocks of Crude Oil and Petroleum Products by PAD District	68
Table 26. Movements by Pipeline	73 74 74 75
Table 30. Stocks of No. 4 Fuel Oil and Residual Fuel Oil	76 77 78 79
Petroleum Overview, Monthly Crude Oil and Petroleum Products Ending Stocks, Annual Crude Oil and Petroleum Products Ending Stocks, Monthly Crude Oil Supply and Disposition, Annual Crude Oil Supply and Disposition, Monthly Crude Oil Ending Stocks, Annual Crude Oil Ending Stocks, Monthly Products Supplied, Annual Products Supplied, Monthly Motor Gasoline Ending Stocks, Annual Motor Gasoline Ending Stocks, Monthly Distillate Fuel Oil Ending Stocks, Annual Distillate Fuel Oil Ending Stocks, Monthly Residual Fuel Oil Ending Stocks, Monthly Residual Fuel Oil Ending Stocks, Monthly Liquefied Petroleum Gases and Ethane Ending Stocks, Annual Liquefied Petroleum Gases and Ethane Ending Stocks, Monthly Other Petroleum Products Ending Stocks, Annual	20 21 20 21 24 25 24 25 28 29 30 31 36 35 34 35
Definitions of Petroleum Products and Other Terms G	
<ol> <li>Data Collection</li></ol>	-2
2. Estimation	10

	3. Accuracy of Petroleum Supply Data	. E-1
	4. Changes in Petroleum Industry Reporting	. E-2
	<ul> <li>5. Notes on Tables</li> <li>5.1 Crude Oil and Petroleum Products Overview</li> <li>5.2 Crude Oil Supply and Disposition</li> <li>5.3 Finished Motor Gasoline Supply and Disposition</li> <li>5.4 Distillate and Residual Fuel Oil Supply and Disposition</li> <li>5.5 Liquefied Petroleum Gases and Ethane Supply and Disposition</li> <li>5.6 Other Petroleum Products Supply and Disposition</li> <li>5.7 U.S. Petroleum Balance (Table 1)</li> </ul>	. E-2
Maps	PAD Districts  Bureau of Mines Refinery Districts	G-





## Overview

### July 1982 Petroleum Supply Summary

In July 1982, crude oil' and natural gas liquids plant production averaged 10.2 million barrels per day, up slightly from the 10.0 million barrels per day during the same period in 1981. During July, 1982, petroleum products supplied (a proxy for consumption) averaged 14.8 million barrels per day, down 5.8 percent from the 15.7 million barrels daily average for July of 1981. Refinery inputs of crude oil for July 1982 averaged 12.4 million barrels per day, a 1.5 percent increase over the previous July. Daily operable crude oil distillation capacity in July 1982 averaged 17.1 million barrels daily, compared with 18.7 million barrels daily a year earlier. The refinery utilization rate was 75.2 percent in July 1982, compared with 67.4 percent one year earlier. Total petroleum net imports in July 1982 averaged 5.0 million barrels per day, and the year-to-date level averaged 4.1 million barrels per day, compared with 5.5 million barrels per day for the first 7 months in 1981. Petroleum product stocks at the end of July 1982 were lower than year earlier levels, 782 million barrels compared with 880 million barrels. July 1982 residual fuel oil stocks were 10 million barrels lower than those a year earlier; and inventories of total motor gasoline at the end of July 1982 were 2 million barrels below the July 1981 level.

### Petroleum Supply Summary

		July		Cumulative January Through July			
Average volume for Period (Million Barrels Per Day)	1982	1981	% Change	1982	1981	% Change	
						-5.1	
Total Product Supplied	14.8	15.7	-5.8	15.4	16.3	-0.7	
Gasoline	6.8	6.8	-0.4	6.5	6.6	-0.7 -3.6	
Distillate Fuel Oil	2.1	2.4	-12.4	2.8	2.9	-3.0 $-17.0$	
Residual Fuel Oil	1.5	2.0	-25.6	1.8	2.2	-17.0	
Crude Inputs to Refineries	12.4	12.3	1.5	11.8	12,5	-6.0	
Crude Oil and Natural Gas							
Liquids Production	10.2	10.0	1.2	10.2	10.2	0.2	
inquias i roadciion	10.2	10.0	1.2	10.2	10.2		
Net Imports	5.0	5.2	-4.3	4.1	5.5	-24.7	
Net Crude Oil Imports <sup>2</sup>	3.9	3.9	1.4	3.0	4.0	-25.7	
SPR Imports	0.1	0,2	-44.6	0.2	0.2	-25.0	
Net Product Imports	1.0	1.2	-16.7	1.0	1,3	-21.3	
Crude Oil Stock Withdrawal <sup>2</sup>	-0,06	-0.04		0.09	-0.03	_	
Product Stock Withdrawal	-0.9	0.1	_	0.5	0.8		
Stocks at End of Period (Million Barrels)							
Crude Oil <sup>2</sup>	345	386	-10.7	1		1	
Gasoline <sup>s</sup>	226	228	-0.7				
Distillate Fuel Oil	148	186	-20.5				
Residual Fuel Oil	69	69	-15.0				
Total Product	782	880	-11.1			1	
SPR	267	173	54.3			1	
Total	1,394	1,439	3.1				

<sup>&</sup>lt;sup>1</sup>Gross imports of crude oil (including Strategic Petroleum Reserve) and petroleum products less exports of crude oil and petroleum products.

Note: Percent changes are based on unrounded values.

Source: Energy Information Administration, U.S. Department of Energy, *Petroleum Supply Monthly*, September 1982,

<sup>&#</sup>x27;Including lease condensate.

<sup>&</sup>lt;sup>2</sup>Excluding Strategic Petroleum Reserve (SPR)

<sup>&</sup>lt;sup>3</sup>Including blending components.

## Update

## Refinery Shutdowns During 1982

The June issue of the Petroleum Supply Monthly highlighted refinery activities in 1981. It indicated that between January 1, 1981 and January 1, 1982, twenty-three refineries having a combined capacity greater than 450,000 barrels per day, were permanently shutdown.

At the beginning of 1982, operable refinery capacity totalled 17.9 million barrels per day. A portion of this operable capacity (1.8 million barrels per day) was idle but capable of restarting within 90 days.

During 1982, the pace of permanent shutdowns has quickened (see Table 1 below). In particular, for the June and July report periods, 37 refineries, having a combined capacity of 841,000 barrels per day, were declared permanently shutdown. The total permanent shutdowns for the year is now at 44 refineries. Table 2 below lists these refineries. Contacts with other refineries indicate that by the end of 1982 it is expected that 52 refineries having a combined capacity of 1.2 million barrels per day will have been permanently shutdown,

Table 1. Refinery Operations in 1981 and 1982

	Operable		Operating		Idle		Permanently Shutdown	
	# Ref.	Capacity MB/D	# Ref.	Capacity MB/D	# Ref.	Capacity MB/D	# Ref.	Capacity MB/D
During 1981							23	451
January 1, 1982 February 1, 1982 March 1, 1982 April 1, 1982 May 1, 1982 June 1, 1982 July 1, 1982	301 299 295 294 294 294 1288 258	17,890 17,983 17,971 17,967 17,971 17,587 17,146	254 250 249 245 246 246	16,104 16,235 16,131 16,065 15,974 15,997	47 49 46 49 48 43	1,786 1,747 1,841 1,903 1,997 1,590	0 2 4 1 0 7 30	0 30 9 14 0 426 415
Jan-Jul, 1982							44	894
Aug-Dec, 1982	250	16,979					8	267
1982 Total (est.)						1	52	1,161

'Includes one new refinery with capacity of 8,000 barrels per day, Source: Form EIA-87 "Refinery Report."

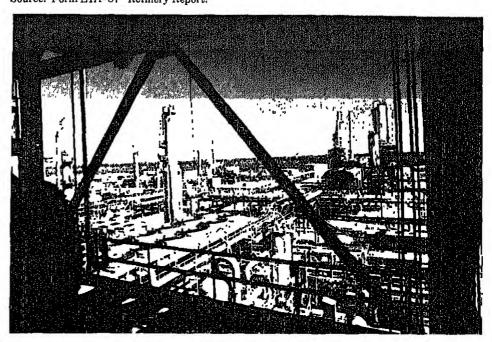


Table 2. Refineries Permanently Shutdown since January 1, 1982 (Barrels per Calendar Day)

·	,	Crude Distillation	Date
Refineries	Location	Capacity	Shutdown
PAD District I		*****	*10.0
Amoco Oil Co.	Baltimore, Maryland	15,000	7/82
Seminole Refining Inc.	St. Marks, Florida	15,000	7/82
Total		30,000	
PAD District II			
Amoco Oil Co.	Sugar Creek, Missouri	104,000	7/82
Ashland Oil Inc.	Findlay, Ohio	20,400	7/82
CRA, Inc. Dillman Oil Recovery	Scottsbluff, Nebraska	5,600	7/82
Inc.	Oblong, Illinois	1,200	3/82
E-Z Serv Refining Inc.	Shallow Water, Kansas	9,500	7/82
Energy Cooperative Inc.	East Chicago, Indiana	126,000	6/82
Industrial Fuel & Asphalt of Indiana	The charge, Manage	110,000	0,02
Inc.	Hammond, Indiana	8,187	6/82
Kentucky Oil & Refining			
Co.	Betsy Lane, Kentucky	8,000	7/82
Mid-America Refining			
Co. Inc.	Chanute, Kansas	3,500	7/82
Northland Oil & Refining			
Co.	Dickinson, North Dakota	5,000	2/82
Texaco Inc.	West Tulsa, Oklahoma	50,000	7/82
Texas American Petro-	777 . 75 . 1 361 34		<b>#</b> 100
chemicals Inc.	West Branch, Michigan	11,500	7/82
Total		347,887	
PAD District III			
Bayou State Oil Corp,	Hosston, Louisiana	3,000	3/82
Bronco Refining Co.	Houston, Texas	2,500	7/82
Caribou-Four Corners			
Oil Co.	Kirtland, New Mexico	2,500	7/82
Clinton-Manges	Palestine, Texas	10,000	7/82
Copano Refining Co.	Ingleside, Texas	11,100	7/82
Dow Chemical U.S.A.	Freeport, Texas	190,000	6/82
Eagle Refining Corp. Independent Refining	Jacksboro, Texas	1,800	7/82
Corp.	Pt. Neches, Texas	30,000	6/82
Independent Refining Corp.	Winnie, Texas	50,000	6/82

Table 2. Refineries Permanently Shutdown since January 1, 1982—Continued

(Barrels per Calendar Day)

Refineries	Location	Crude Distillation Capacity	Date Shutdown
PAD District III—Cont.	Location	Capacity	Shurdown
Lake Charles Refining			
Co.	Lake Charles, Louisiana	28,000	7/82
Longview Refining Co.	Longview, Texas	14,000	4/82
Petraco-Valley Oil &			
Refining Co.	Brownsville, Texas	12,300	7/82
Rio Grande Crude			
Refining	Brownsville, Texas	9,500	6/82
Rio Grande Recovery			
Systems Inc.	Brownsville, Texas	1,000	7/82
Sentry Refining Inc.	Corpus Christi, Texas	25,000	2/82
Shepard Oil Co.	Jennings, Louisiana	10,000	7/82
Sooner Refining Co.	Darrow, Louisiana	8,000	7/82
TARCO	Euless, Texas	6,000	7/82
T&S Refining Inc.	Jennings, Louisiana	11,500	7/82
Tipperary Refining Co.	Ingleside, Texas	10,400	7/82
Wickett Refining Co.	Wickett, Texas	8,000	7/82
Total		444,600	
PAD District IV			
C & H Refinery Inc.	Lusk, Wyoming	190	7/82
Glacier Park Co.	Osage, Wyoming	4,160	3/82
Morrison Petroleum Co.	Woods Cross, Utah	6,800	7/82
Sage Creek Refining Co.	Cowley, Wyoming	1,200	7/82
Texaco Inc.	Casper, Wyoming	21,000	7/82
Total		32,850	
PAD District V Gibson Oil & Refining			
Co.	Bakersfield, California	4,600	7/82
Lunday-Thagard Oil Co.	South Gate, California	12,000	6/82
United Independent Oil	•	·	
Co.	Tacoma, Washington	730	3/82
West Coast Oil Co.	Oildale, California	21,000	7/82
Total		38,330	
United States, Total		893,667	

Source: Form EIA-87, "Refinery Report".

## Petroleum Focus

### Distillate Fuel Oil Outlook: Winter 1982-83

As the winter 1982-83 heating season approaches attention turns to the adequacy of heating oil stocks. A basic concern is whether supplies of heating oil this winter will be sufficient to meet U.S. demand. A second concern is whether low inventories of heating oil will make the distribution system vulnerable to a sudden cold spell or a localized transportation problem. Such situations could cause short-term regional shortages or larger-than-expected increases in heating oil prices.

Preliminary data indicate that the level of anticipated inventories should be adequate, but that the cushion of extra inventories is smaller than in previous years. However, since current inventories of crude oil are relatively high in terms of days of supply, and refineries are producing well below their maximum capacity, potential supplies are expected to be sufficient to meet even the extra demands of colder weather and stronger economic growth. Supplies of heating oil should be adequate, unless there is some drastic reduction in the worldwide availability of crude oil or in the willingness and ability of U.S. refiners to produce heating oil.

If demand is higher than expected during the winter heating season and stock levels fall more rapidly than expected, industry can adjust by:

- Drawing down crude oil stocks and increasing the rate of refinery utilization. Crude oil stocks at the end of August were 356 MMB, well within the average range for this time of year. Refinery utilization of 68 percent during the first 8 months of 1982 is well below recent historical peaks which have been as high as 88 percent in 1978.
- Importing more distillate from outside the United States. Current distillate imports are well below the peak of more than 650 MB/D in February 1977. Presently, Europe has more excess refining capacity than the United States.
- Changing present refinery yields to produce more distillate.

These options provide industry with considerable flexibility to respond to increases in demand.



### Recent Trends in Fuel Oil

This article reviews recent trends in the demand for, and supply of distillate and residual fuel oils, the two principal petroleum products used for heating in the United States. The uses of these petroleum products have changed significantly since 1977, the year of peak consumption. In that year, less than 40 percent of all distillate was consumed by the transportation sector (e.g., automobiles, vessels, and railroads), whereas by 1981 more than half of all distillate supplied was consumed for transportation, reflecting decreased heating use. Although one of the principal uses of distillate has been space heating, less than one gallon in five (19 percent) of all distillate supplied in 1981 was used for residential heating.

#### Recent Trends in Demand

Demand for distillate fuel oil peaked in 1978 at about 3.4 million barrels per day and fell to about 2.8 million barrels per day by 1981 (see Table 1). This decrease of about 17 percent in three years can be attributed to changes in variables affecting distillate consumption; i.e., prices, economic activity, weather, and conservation effects. By far the most influential variable over the 1978-1981 pe-

riod was price. In real terms, residential heating oil prices rose more than 75 percent over the 1978-1981 period—an annual average increase of over 20 percent,

Price increases can affect quantities demanded in several ways:

- Utilization of fuel-burning equipment decreases as consumers and businesses "do without." This is typically a very short-term response.
- Existing equipment is run using alternative, less costly fuels. This is also typically a short-term response, and generally applies only to those establishments which have invested in dual-fired boilers and furnaces.
- Embodied and disembodied technological changes are made to existing equipment or the environment in which it is used. An example of an embodied change is cleaning and adjusting furnaces and boilers to make them more efficient. An example of a disembodied change is adding more insulation to a home or office building.

Table 1. Distillate Fuel Oil Supply and Demand: 1978-1982 (Million Barrels per Day)

Year/	Product Supplied (Apparent		Net	Stock
Quarter	Demand)	Production	Imports <sup>1</sup>	Withdrawals <sup>2</sup>
-			-	
1978	3.43	3.17	0.17	0.09
1979	3.31	3.15	0.19	-0.03
1980	2.87	2.66	0.14	0.06
1981 - I	3,46	2,76	0.24	0.46
- II	2,47	2.46	0.17	-0.18
- III	2,43	2.55	0.16	-0.23
- IV	2.96	2.69	0.11	0.17
- Average	2.83	2.61	0.17	0.04
1982 - I	3,16	2.45	0.00	0.69
- II	2.63	2.57	0.01	0.03
- Average <sup>1</sup>	2,89	2.51	0.01	0.36

<sup>&#</sup>x27;Negative numbers indicate that exports exceeded imports.

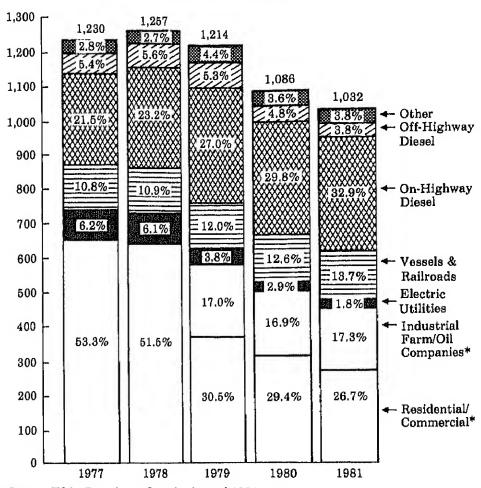
Note: Beginning in January 1981 EIA modified survey forms, definitions, and processing procedures. See Explanatory Note 4.

Sources: EIA, Petroleum Supply Annual 1981 and Petroleum Supply Monthly (for 1982),

Negative numbers indicate stock additions.

January-June 1982.

Exhibit 1. Deliveries of Distillate Fuel Oil by Use as Percent of Total (Millions of Barrels)



Source: EIA, Petroleum Supply Annual 1981

35 95 45 95 45

These changes typically take place over a longer period of time and have a more lasting impact.

 Purchase and installation of new, more efficient fuel-burning equipment. Because of the cost involved, this is typically a longterm investment decision. Once the investment has been made, its impact will be felt for many years.

A Residential Energy Consumption Survey' conducted by the Energy Information Administration (EIA) in 1980 and 1981 indicated that during the April 1979-March 1980 period, an estimated 1.3 million households, or 8.2 percent of all households then heating with fuel oil or kerosene, switched to other fuels, mainly wood and natural gas, as their main source of heat. In addition, during

1978-1979, approximately 1.9 million households heating with fuel oil or kerosene added attic insulation; 1.6 million added storm windows and/or storm doors; and 0.7 million added wall insulation. These data indicate a significant trend toward both fuel-switching and conservation by residential consumers of fuel oil.

Consumption of distillate fuel oil is shifting from the traditional fuel oil use for space heating, industrial purposes, and electricity generation toward increased usage in the transportation sec-

<sup>\*</sup>These were a single category prior to 1979.

Energy Information Administration, Department of Energy, Residential Energy Consumption Survey: Report Numbers: DOE/EIA-0207/5, July 1980; DOE/EIA-0262/1, April 1981; DOE/EIA-0314, June 1982.

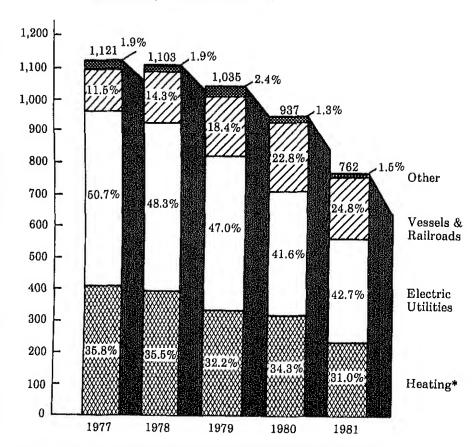
tor (see Exhibit 1). On-highway diesel had the most dramatic increase, 28 percent from 1977 to 1981 while electric utility use declined 76 percent during the same period. In 1981, diesel fuel accounted for over 50 percent of the distillate fuel oil consumption. This reflects both the increase in the diesel penetration of the private and commercial automobile fleet, and the overall decline in demand over the 1978-81 period.

The latest demands (through mid-1982) show an apparent leveling off of the decline in consumption noted earlier. Falling prices and anticipation of price increases contributed to a slight increase (about 6 percent) in product supplied between the second quarter of 1981 and the second quarter of 1982. Despite a colder-than-normal winter, first quarter demand in 1982 was down 9 percent from year-earlier levels, largely because

of lower first-quarter economic activity. Another factor in the leveling off of the distillate demand decrease is the likelihood that consumer actions such as adding insulation, retrofitting, and doing without have already been completed, and that further efficiencies will occur more slowly as the current stock of fuel-burning equipment is replaced over the next several years.

Exhibit 2 indicates changes in the composition of residual fuel oil consumption. The commercial, industrial, and oil company sectors together declined 400,000 barrels per day, or 38 percent between 1978 and 1981. Consumption by the transportation sector in 1981 accounted for about 25 percent of total demand. Consumption by electric utilities declined 570,000 barrels per day, or almost 40 percent, between 1978 and 1981

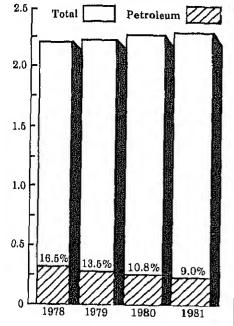
Exhibit 2. Deliveries of Residual Fuel Oil by Use as Percent of Total (Millions of Barrels)



<sup>\*</sup>Includes Oil Companies, Commercial, and Industrial

Source: EIA Petroleum Supply Annual, 1981

Exhibit 3. Electricity Generation by Source: 1978-1981 (Billion Kilowatt Hours)



Source: Energy Information Administration, U.S. Department of Energy, Monthly Energy Review, August 1982, p. 66, (Exhibit 3). Utility companies shifted from electricity generation using petroleum to generation using other energy sources. While electricity generation increased by 4 percent between 1978 and 1981, generation using petroleum declined 44 percent. Coal and natural gas more than made up the decline although generation by natural gas stopped growing in 1981, while growth in electricity generation using coal continued to be strong.

The greatest demand levels for residual fuel oil were about 3.0 million barrels per day in 1977 and in 1978. By 1981 (see Table 2), demand had dropped to about 2.09 million barrels per day, a decrease of about 32 percent in 3 years. A major determinant in the decline was price, which nearly doubled in real terms over the 3-year period, 1979-1981.

### Recent Trends in Supply

Production, net imports, and net stock withdrawals comprise the supply of distillate fuel oil. Production of distillate declined 18 percent between 1978 and 1981, slightly more than the 12 percent decline in refinery production of all petroleum products over this period (see Table 3). Coincidental with the decline in distillate production was a reduction in refinery utilization from a rate of 87.8 percent in 1978 to 68.6 percent by 1981. This reflects the decrease in general demand for petroleum products over the period. Refinery inputs of crude oil fell 15 percent, and overall petroleum product demand declined 15 percent during the 3 years.

Distillate imports, while fluctuating from year to year, averaged 173,000 bar-

Table 2. Residual Fuel Oil Supply and Demand: 1978-1982 (Million Barrels per Day)

	Product		Net	Stock
Year	Supplied	Production	Imports	Withdrawals'
1978	3.02	1.67	1.34	-0.00
1979	2.83	1.69	1.14	-0.02
1980	2.51	1.58	0.91	10,0
1981 - I	2.54	1.53	0.78	0.18
- II	1.91	1,26	0.54	0.06
- III	1.90	1.23	0.74	-0.12
- IV	2.01	1.26	0.67	0.02
- Average	2.09	1.32	0.68	0.04
1982 - I	2.10	1.15	0.67	0,23
- II	1.64	1.12	0.50	-0.04
- Average <sup>2</sup>	1.87	1.13	0.58	0.10

<sup>&</sup>lt;sup>1</sup>Negative numbers indicate stock additions.

Note: Beginning in January 1981, EIA modified survey forms, definitions and processing procedures, See Explanatory Note 4.

Sources: EIA, Petroleum Supply Annual 1981 and Petroleum Supply Monthly (for 1982).

Table 3. Distillate & Residual Fuel Oil Production and Total Refinery Production: 1978-1982 (Million Barrels per Day)

Year	Total Refinery Production	Distillate Fuel Oil Production	Residual Fuel Oil Production
1978	16.97	3.17	1.67
1979	16.76	3.15	1.69
1980	14.62	2.66	1.58
1981	13.99	2.61	1.32
1982	13.18	2.51	1.13

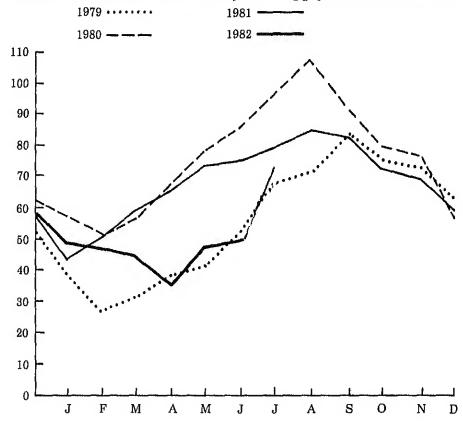
January-June 1982.

Note: Beginning in January 1981, EIA modified survey forms, definitions and processing procedures, See Explanatory Note 4.

Sources: EIA, Petroleum Supply Annual. (for 1978-1981): Petroleum Supply Monthly (for 1982)

<sup>&</sup>lt;sup>2</sup>January-June 1982.

Exhibit 4. Distillate Fuel Oil Days of Supply: 1979-1982



Sources: Energy Information Administration, U.S. Department of Energy, Petroleum Statement, Annual, 1979 and 1980; Petroleum Supply Annual 1981; and Petroleum Supply Monthly, (for 1982).

rels per day in 1981, the same level as in 1978. In 1982, market conditions have enabled the United States, for the first time in several years, to export significant quantities of distillate to Mexico, Japan, and Western Europe.

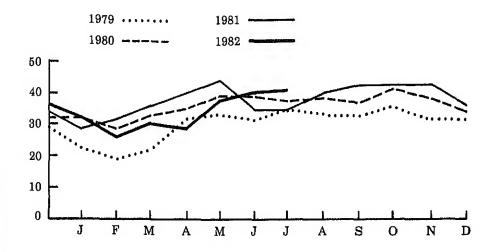
Stock levels of distillate normally follow a pattern of buildups in the late spring and summer, and drawdowns in the fall and winter. The seasonal patterns remain fairly constant from year to year. During the past few years, however, stock levels have dropped successively. Distillate stocks during 1981 and 1982 were lower each month than during the corresponding period a year earlier. Year-end stocks in 1981 stood at 192 million barrels, 11 percent below ending stocks in 1978, and 16 percent below 1979 levels. Reasons for the lower levels of stocks held by primary suppliers over

the last several years include:

- Higher interest rates, making inventory holdings more costly;
- Lower production rates due to a general softening of demand, as discussed earlier; and
- Increased stocks of crude oil, evidently preferred by refiners to product stocks as a buffer in a period of generally adequate supplies.

Although stocks of distillate have been lower, available days of supply of distillate (primary stocks divided by daily average product supplied) have not shown the same decline (see Exhibit 4). Particularly, in the September-December period of each of the 3 years 1979-1981, the number of available days of supply has been roughly similar—

Exhibit 5. Residual Fuel Oil Days of Supply



Sources: EIA, Petroleum Statement, Annual, 1979 and 1980; Petroleum Supply Annual, 1981; and Petroleum Supply Monthly, (for 1982).

dropping from about 80 days at the end of September to about 60 days by year's end. During the remainder of the year, days of supply largely reflect the severity of the winter, with the cold winters of both 1978-1979 and 1981-1982 yielding only 40 days of supply available by the end of April of 1979 and 1982, respectively.

Residual fuel oil (residual) production declined 21 percent between 1978 and 1981. It is significant, however, that residual production, unlike that of distillate, was supplying 63 percent of residual fuel demand by 1981, compared with 55 percent in 1978, This reflects the substantial decline in net imports, occurring this period, which fell 50 percent to 680,000 barrels per day in 1981. The beginning of the decline in net imports coincided with the end of the entitlements program. In addition, the removal of export limitations (in October 1981) led to increases in the exportation of residual oil.

End of year stocks of residual fuel oil, which peaked at 96 million barrels in 1979, fell to 78 million barrels by the end of 1981, a decline of 19 percent. As with distillate, end-of-month stocks were successively lower each month in 1981 and 1982 than in the previous year. Again, this reflects lower prices and demand,

and adequate crude oil stocks. As seen in Exhibit 5, however, the decline in residual consumption has meant that available days of supply have been higher each year since 1979. Although available days of supply fell by April of this year to less than 30 days, days of supply in May rose to 38 days due mostly to a continuing decrease in demand. This is still lower than in 1981, but higher than in the corresponding months of 1979 and 1980.

### Conclusion

Demand for both distillate and residual fuel oils has dropped over the past few years, and end-use consumption patterns have changed. The use of distillate fuel oil for heating and the use of residual fuel oil for electrical generation has decreased substantially as traditional customers have shifted to other fuels. In contrast, distillate use for transportation has been increasing.

The general decrease in the use of distillate and residual fuel oils in the domestic market is having a favorable influence on the energy balance of trade, as less product is being imported than in the past several years, and more product is being exported. Based on days of supply measures, current levels of inventories are within historic ranges.

#### What are Futures?

Futures are contracts for the delivery of a specified quantity of a commodity on a specified date in the future, at a price which is agreed upon when the contract is executed. The quality of product and the delivery points that will satisfy the contract are also indicated.

Futures contracts differ from more common contractural arrangements in that the contracting parties need never meet one another or, indeed, even know who their counterparts are. Further, a most important feature of futures trading is that contracts may be resold many times before the specified delivery date. That is, a futures contract has a market value that is independent of the delivery price specified in the contract.

Firms and individuals use futures both to "hedge" against future price and supply uncertainty and to "speculate" on expected price trends. As a tool to reduce supply uncertainty, the use of futures contracts is straightforward the contract guarantees delivery of a certain volume on a certain date. The use of futures to reduce price uncertainty is more complicated and involves both "short" and "long" hedgers. A short hedger sells a futures contract to "lock in" the price he will receive either for his inventories or for his planned future production. A long hedger buys a futures contract to "lock in" his future product costs. It is important to understand that the use of futures to hedge against price uncertainty does not require that the firm either take or make delivery of a physical barrel of oil.

The efficient use of futures for price-risk hedging is based on the condition that the value of a firm's cash market position will change by an equal but opposite amount to that of an appropriate futures position. In the long run, the net gain from a successful hedging operation should be zero—the firm neither loses nor profits from any change in cash market prices. Thus, as important as the capability of avoiding major, unexpected losses, hedging in futures enables firms to plan and budget more accurately for their future operations.

## Futures Trading on Heating Oil Markets

### History

Activity in oil futures trading has accelerated considerably since a No. 2 heating oil futures contract was introduced on the New York Mercantile Exchange (NYMEX) in late 1978. Currently there are petroleum futures markets in heating oil, residual fuel oil, leaded and unleaded gasoline, and propane.

In its first year, the NYMEX No. 2 heating oil futures contract experienced only light trading volume (10-100 contracts daily). In September 1979, the trading volume and open interest (the number of active contracts) and the quantity of oil involved began increasing substantially (see Exhibit 1). Three reasons for this increased activity are:

- The disruption of Iranian oil supplies, which began in 1979, provoked price uncertainty and attracted speculators as well as industry hedgers to the market. World oil prices nearly doubled in 1979, but the rate of price increase in the last quarter was especially sharp.
- Large heating oil inventories had been built up by fall 1979, partly in response to government inducements to build supplies for the upcoming winter. There had been general concern about the adequacy of heating oil stocks after nationwide motor gasoline shortages that summer. Oil jobbers and distributors felt a need to hedge these substantial inventories.
- When the Iran-Iraq conflict began in September 1980, the No. 2 heating oil futures market had been around long enough for industry and potential speculators to observe sufficient "liquidity" (i.e., a sufficient volume of trading to ensure that a futures position may be easily closed) in the market and to gain confidence in the use of the contracts. With the tremendous

uncertainty concerning world oil supplies that arcse with the outbreak of the Persian Gulf war, there also arose tremendous opportunities for speculation.

Both the number of contracts and the volume of oil represented by No. 2 heating oil futures contracts for New York Harbor delivery increased rapidly after September 1980. By March 1981, the monthly trading exceeded 89,000 contracts and by April 1982, the daily trading volume reached a NYMEX record of 14,000 contracts. The availability of excess crude oil on the world market, which became apparent early in 1981, increased the need to hedge inventories, helping to sustain both trading volume and open interest.

NYMEX trading in heating oil contracts for Gulf Coast delivery was initiated in August 1981. Activity is still much lower than that for the New York Harbor contracts.

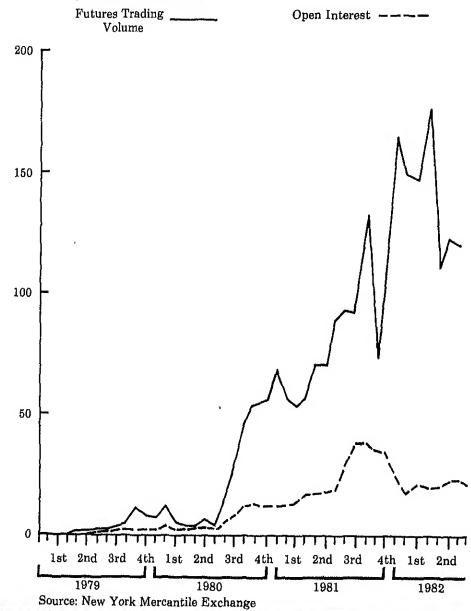
### Impacts on Inventory Strategy

The emergence of an active futures market in heating oil may be influencing the inventory strategies of producers. distributors, and end-users. By purchasing a futures contract, a distributor or end-user can guarantee it will receive a certain volume of product on a given date. Thus, the firm's need to maintain stocks in order to ensure adequate product availability on that date is reduced. At the same time, a producing firm that has high inventories, but is concerned about the possibility either of not being able to sell those stocks or of the future sales price declining, may protect the value of its stocks by selling futures contracts. In this case, the producer may maintain higher inventories than it would if there were no futures market. The buying and selling of futures contracts by hedgers at different levels in the industry has the effect of redirecting where stocks will be maintained, Speculators assist this process in a major way, by compensating for any net difference between hedging sales and purchases with their own purchases and sales. In general, the risk transference made possible by futures hedging, in conjunction with a more efficient dis-

<sup>&#</sup>x27;Each contract is for 1,000 barrels of heating oil (42,000 gallons) and is priced in cents per gallon. Each cent change reflects the gain or loss of \$420 per contract.

Exhibit 1. No. 2 Heating Oil Futures Trading Volume and Open Interest

(Thousand Contracts)

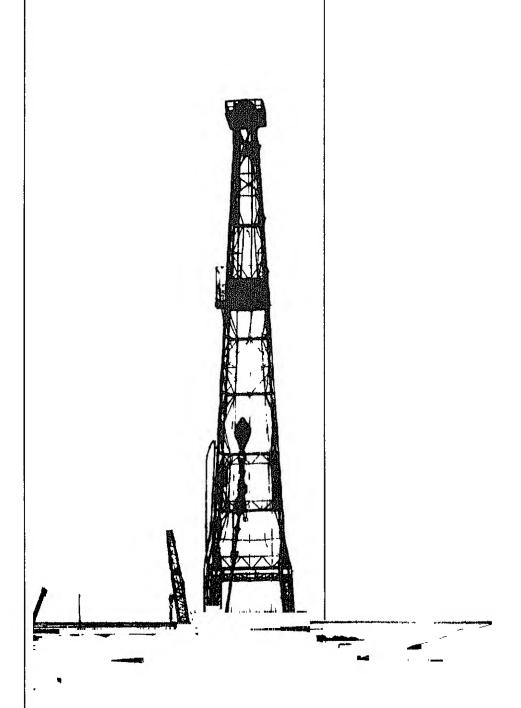


tribution of product inventories, may be expected to result in generally lower optimal stock levels as the volume of futures hedging activity increases.

### Impacts on Pricing Strategy

Proponents of energy futures contracts believe that hedging in futures is changing the way the petroleum industry prices its products. As participation in the No. 2 heating oil market by the petroleum industry has increased, it is believed that futures prices are becoming more widely accepted indicators of free market product values than are spot market quotations. Normal delivery contracts can be based upon futures market prices instead of "posted" spot market prices, as is now the case. In addition, major oil companies may begin using futures market prices to determine internal transfer prices between affiliates. Finally, the once common fixed-price oil contract could re-emerge due to futures market hedging.

# Summary Statistics



#### Crude Oil<sup>1</sup> and Petroleum Products Overview

		Fiel	ld Production	on	Stock W	ithdrawal <sup>2</sup>		Ending Stocks <sup>3</sup>
		Total Domestic <sup>4</sup>	Crude Oll	Natural Gas Plant Production	Crude Oll <sup>5</sup>	Petroleum Products	Petroleum Products Supplied	Crude Oli <sup>5</sup> and Petroleum Products
				Thousand Barre	els per Day			Millions of Barrels
	/	40.075	0.000	4 700	11	-146	17,308	1,008
973	AVERAGE	10,975	9,208	1,738		-117	16,653	1,074
974	AVERAGE	10,498	8,774	1,688	-62		16,322	1,133
1975	AVERAGE	10,045	8,375	1,633	-17	-145		
1976	AVERAGE	9,774	8,132	1,603	-39	96	17,461	1,112
1977	AVERAGE	9,913	8,245	1,618	-170	-378	18,431	1,312
1978	AVERAGE	10,328	8,707	1,567	-78	172	18,847	1,278
1979	AVERAGE	10,179	8,552	1,584	-148	-25	18,513	1,341
1980	January	10,377	8,675	1,648	-594	270	18,851	1,351
	February	10,402	8,705	1,656	-292	563	18,817	1,343
	March	10,303	8,698	1,568	-47	-99	17,377	1,348
		10,356	8,685	1,630	-412	-229	16,784	1,367
	April			1,615	-117	-520	16,238	1,387
	May	10,298	8,635		65	-869	16,187	1,411
	June	10,164	8,554	1,561				-
	July	10,113	8,547	1,524	88	-556	16,008	1,425
	August	9,974	8,414	1,519	-274	-473	15,753	1,449
	September	10,184	8,619	1,515	307	-259	16,598	1,447
	October	10,092	8,532	1,516	~191	756	16,995	1,430
	November	10,109	8,495	1,571	-8	-84	16,702	1,432
	December	10,204	8,606	1,560	304	993	18,410	1,392
	AVERAGE	10,214	8,597	1,573	~98	-42	17,056	
1981	January	10,231	8,540	1,652	50	1,159	18,430	1,388
	February	10,294	8,604	1,653	-278	250	16,989	1,389
	March	10,272	8,613	1,624	-632	224	15,907	1,401
	April	10,195	8,557	1,599	-595	148	15,350	1,415
		10,150	8,501	1,593	-391	-374	15,353	1,438
	May			1,594	-135	406	16,095	1,430
	June	10,287	8,629		-360	91	15,682	1,439
	July	10,098	8,500	1,548				1,457
	August	10,243	8,583	1,614	397	-999	15,263	
	September	10,281	8,604	1,612	-285	-341	15,655	1,476
	October	10,225	8,563	1,598	-760	477	15,822	1,485
	November	10,269	8,586	1,630	-325	-233	15,593	1,501
	December	10,220	8,585	1,590	-170	745	16,596	1,484
	AVERAGE	10,230	8,572	1,609	-290	130	16,058	
1982	January	10,257	8,669	1,548	-236	1,129	15,890	1,461
	February	10,261	8,690	1,524	-216	1,268	15,941	1,431
	March	10,212	8,597	1,570	-65	1,049	15,560	1,401
	April	10,296	8,652	1,588	107	1,594	16,048	1,350
		10,223	8,660	1,520	49	-34	14,845	1,349
	May	10,242		1,505	86	-515	14,931	1,362
	June		8,681		R -155	F1 -865	R14,771	R 1,394
	July* August**	10,228 NA	R 8,649 <i>8,731</i>	1,521 NA	-401	-290	14,610	1,415
							,	•
	AVERAGE	NA	8,666	NA	-104	405	15,316	

includes lease condensate.

A negative number indicates an increase in stocks and a positive number indicates a decrease.

Ending stocks for 1973-1979 are totals as of December 31.

Includes crude oil, natural gas plant production, other hydrocarbons and alcohol.

Includes stocks located in the Strategic Petroleum Reserve.

Totals may not equal sum of components due to independent rounding.

NA = Not available. R = Revised data.

'See Explanatory Note 5.1.

'Preliminary statistics. See Explanatory Note 2.7.

Note: Annual stock changes for 1975 and 1981 were calculated using expanded survey coverage. Geographic coverage: The 50 United States and the District of Columbia.

Sources: See "Sources" at the end of this section.

Crude Oil<sup>1</sup> and Petroleum Products Overview (continued)

			Imports <sup>2</sup>	T	Exports <sup>3</sup>			
		Total	Crude Oil <sup>4</sup>	Petroleum Products	Total	Crude Oil	Petroleum Products	Net <sup>5</sup> Importe
				Thousa	nd Barrels p	er Day		
973	AVERAGE	6,256	3,244	3,012	231	2	229	6,025
974	AVERAGE	6,112	3,477	2,635	221	3	218	5,892
975	AVERAGE	6,056	4,105	1,951	209	6	204	6,846
976	AVERAGE	7,313	5,287	2,026	223	8	215	7,090
977	AVERAGE	8,807	6,615	•		-	193	8,565
				2,193	243	50		
1978	AVERAGE	8,363	6,356	2,008	362	158	204	8,002
1979	AVERAGE	8,456	6,519	1,937	472	235	237	7,984
980	January	8,598	6,406	2,192	550	322	228	8,048
	February	7,945	6,013	1,931	558	332	227	7,386
	March	7,452	5,695	1,757	573	330	243	6,879
	April	7,106	5,598	1,508	434	192	241	6,672
	May	6,579	5,106	1,472	591	326	266	5,987
	June	6,894	5,480	1,414	654	365	289	6,240
	July	6,257	4,843	1,414	531	238	293	5,727
	August	6,192	4,803	1,389	319	78	241	5,873
	September	6,239	4,707	1,532	557	322	235	5,682
	October	6,379	4,768	1,611	598	309	288	5,781
	November	6,408	4,680	1,728	549	289	260	5,858
	December	6,894	5,082	1,812	622	343	279	6,272
	AVERAGE	6,909	5,263	1,646	544	287	258	6,365
1981	January	6,827	4,932	1,895	558	339	219	6,270
	February	6,772	4,873	1,899	569	198	371	6,203
	March	6,028	4,521	1,507	586	210	376	5,442
	April	5,668	4,338	1,330	570	198	372	5,098
	May	5,775	4,287	1,489	595	312	283	5,180
	June	5,435	4,061	1,375	420	123	297	5,015
	July	5,816	4,296	1,521	571	257	314	5,245
	August	5,767	4,179	1,588	644	204	440	5,123
	September	6,365	4,740	1,624	519	194	325	5,845
	October	5,959	4,380	1,579	738	226	512	5,221
	November	5,741	4,046	1,695	701	278	423	5,041
	December	5,843	4,137	1,706	656	189	467	5,187
	AVERAGE	5,996	4,396	1,599	595	228	367	5,401
1982	January	5,232	3,648	1,585	829	238	591	4,404
	February	4,691	2,949	1,742	804	304	499	3,887
	March	4,461	2,856	1,606	882	321	561	3,579
	April	4,286	2,813	1,474	786	174	611	3,501
	May	4,784	3,314	1,471	803	262	542	3,981
	June	5,227	3,782	1,445	703	94	609	4,524
	July*	R 5,763	R 4,245	R 1,518	741	229	512	5,022
	August**	4,899	3,638	1,261	NA	NA	NA	NA NA
	AVERAGE	4,922	3,412	1,510	NA	NA	NA	NA

<sup>1</sup> Includes lease condensate.

Includes shipments from United States possessions and territories.
 Includes shipments to United States possessions and territories.
 Includes crude oil for storage in the Strategic Petroleum Reserve.
 Net Imports = Imports minus Exports.

Totals may not equal sum of components due to independent rounding.

NA = Not available. R = Revised data.

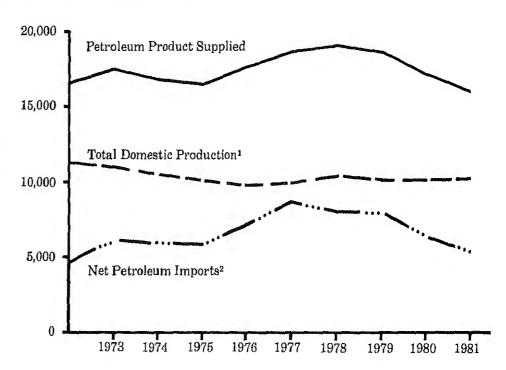
See Explanatory Note 5.1.

Preliminary Statistics. See Explanatory Note 2.7.

Geographic coverage: The 50 United States and the District of Columbia.

Sources: See "Sources" at the end of this section.

# Petroleum Overview, Annual (Thousand Barrels per Day)



<sup>1</sup>Includes crude oil and natural gas plant production.

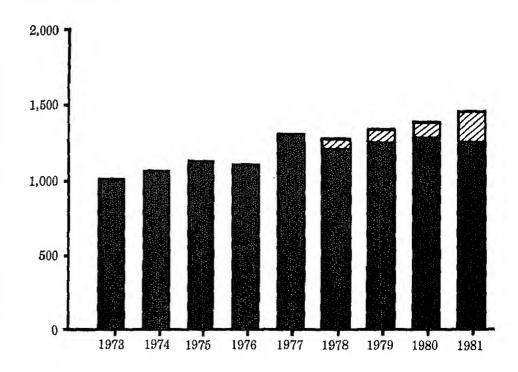
Includes SPR imports.

Source table: "Crude Oil and Petroleum Products Overview."

#### Legend

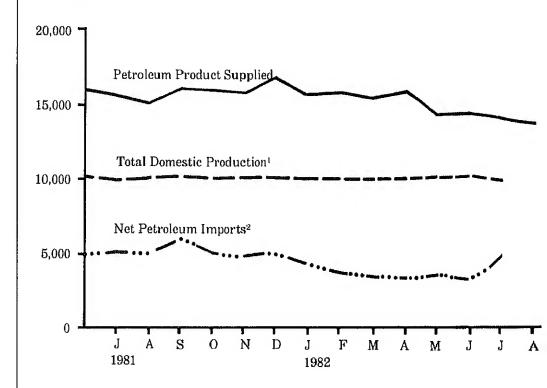
SPR Crude Oil

Crude Oil and Petroleum Products, Excluding SPR Crude Oil and Petroleum Products Ending Stocks, Annual (Millions of Barrels)



ource tables: "Crude Oil and 'etroleum Products Overview" and Crude Oil Supply and Disposition."

# Petroleum Overview, Monthly (Thousand Barrels per Day)



Includes crude oil and natural gas plant production.

<sup>2</sup>Includes SPR imports.

Source table: "Crude Oil and Petroleum Products Overview."

#### Legend

ZZ SPR Crude Oil \*

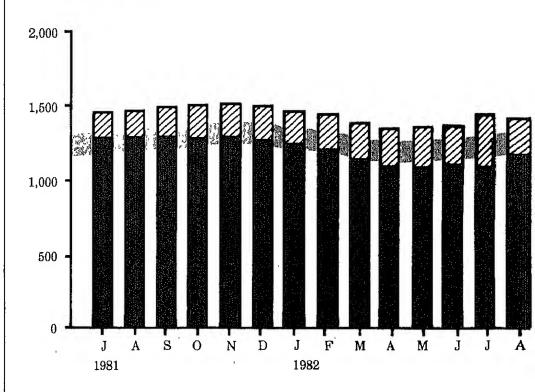
Crude Oil and Petroleum Products, Excluding SPR

Average Stock Range

<sup>1</sup>Average stock range (excluding SPR) based on 3 years of data, See Explanatory Note 2.5.

Source tables: "Crude Oil and Petroleum Products Overview" and "Crude Oil Supply and Disposition."

# Crude Oil and Petroleum Product Ending Stocks, Monthly (Millions of Barrels)



					Supply			
		Field Pro	oduction		Imports <sup>2</sup>			ock rawal <sup>3</sup>
		Total Domestic	Alaskan	Total	SPR4	Other	SPR4	Other
				Thous	and Barrels p	per Day		
1973	AVERAGE	9,208	198	3,244		3,244		11
1974	AVERAGE	6,774	193	3,477		3,477		-62
1975	AVERAGE	8,375	191	4,105		4,105		-17
1976	AVERAGE	8,132	173	5,287		5,287		-39
1977	AVERAGE	8,245	464	6,615	21	6,594	-20	-150
1978	AVERAGE	8,707	1,229	6,356	162	6,195	-163	84
1979	AVERAGE	8,552	1,401	6,519	67	6,452	-67	-81
1919	AVERAGE	0,002	1,401	0,010	0.	0,402	•	•
1980	January	8,675	1,634	6,406	0	6,406	0	-594
	February	8,705	1,630	6,013	0	6,013	0	-292
	March	8,698	1,647	5,695	0	5,695	0	-47
	April	8,685	1,649	5,598	0	5,598	0	-412
	May	8,635	1,627	5,106	0	5,106	0	-117
	June	8,554	1,626	5,480	0	5,480	0	65
	July	8,547	1,612	4,843	0	4,843	0	88
	August	8,414	1,612	4,803	0	4,803	0	-274
	September	8,619	1,610	4,707	54	4,653	-54	361
	October	8,532	1,588	4,768	131	4,637	-123	-68
	November	8,495	1.561	4,680	142	4,538	-189	181
	December	8,606	1,602	5,082	198	4,884	-177	481
	December	0,000	F1002	5,002	180	4,004	-177	401
	AVERAGE	8,597	1,617	5,263	44	5,219	-45	-52
1981	January	8,540	1,606	4,932	106	4,826	-151	201
	February	8,604	1,619	4,873	80	4,793	-127	-150
	March	8,613	1,618	4,521	140	4,382	-155	-477
	April	8,557	1,608	4,338	272	4,066	-444	-151
	May	8,501	1,580	4,287	386	3,901	-513	122
	June	8,629	1,632	4,061	318	3,743	-434	299
	July	8,500	1,605	4,296	175	4,121	-324	-36
	August	8,583	1,602	4,179	257	3,922	-372	769
			1,607	4,740	435	4,305	-486	201
	September	8,604			453 453		-501	-259
	October	8,563	1,596	4,380		3,927	-259	-25 <del>9</del> -6 <del>6</del>
	November	8,586	1,614	4,046	271	3,774		
	December	8,585	1,623	4,137	165	3,971	-252	82
	AVERAGE	8,572	1,609	4,396	256	4,141	-336	, 46
1982	January	8,669	1,712	3,648	170	3,478	-159	-77
	February	8,690	1,715	2,949	159	2,790	-213	-3
	March	B,597	1,702	2,856	185	2,671	-235	170
	April	8,652	1,687	2,813	190	2,623	-233	341
	May	8,660	1,725	3,314	204	3,110	-236 -176	225
	June	8,681	1,675	3,782	105	3,678	-105	191
			1,0/0 D1745					R ~58
	July* August**	R 8,649	R1,715 1,701	R 4,245 <i>3,638</i>	R 97 <i>199</i>	FI 4,147 <i>3,439</i>	R -97 199	-202
	wndnat	8,731	1,701	3,038	199	3,439	-199	-202
	AVERAGE	8,666	1,704	3,412	164	3,248	-177	73

<sup>&</sup>lt;sup>1</sup> Includes lease condensate.

Note: Annual stock changes for 1975 and 1981 were calculated using expanded survey coverage, Geographic coverage: The 50 United States and the District of Columbia.

Sources: See "Sources" at the end of this section.

<sup>&</sup>lt;sup>2</sup> Includes shipments from United States possessions and territories.

<sup>3</sup> A negative number indicates an increase in stocks and a positive number indicates a decrease.

<sup>&</sup>lt;sup>4</sup> Strategic Petroleum Reserve.

Totals may not equal sum of components due to independent rounding.

NA = Not available. R = Revised data.

See Explanatory Note 5.2.
Preliminary statistics. See Explanatory Note 2.7.

Crude Oil<sup>1</sup> Supply and Disposition (continued)

		Supply (C	ontinued)	Dispo	sition	Er	nding Stock	<b>s</b> 2
		Unac- counted for Crude Oil	Crude Used Directly and Losses	Refinery Inputs	Exports <sup>3</sup>	Total Crude Oli	SPR4	Other Primary
			Thousand B	arrels per Day	/	Mil	llons of Barr	els
1973	AVERAGE	3	-32	12,431	2	242		242
1974	AVERAGE	-25	-28	12,133	3	265		265
1975	AVERAGE	17	-30	12,442	6	271		271
1976	<b>AVERAGE</b>	77	-33	13,416	8	285		285
1977	AVERAGE	-6	-30	14,602	50	348	7	340
1978	AVERAGE	-57	-30	14,739	158	376	67	309
1979	AVERAGE	-11	-29	14,648	235	430	91	339
1980	January	166	-31	14,301	322	449	91	358
	February	124	-31	14,187	332	457	91	366
	March	-278	-30	13,709	330	459	91	367
	April	-165	-29	13,484	192	471	91	380
	May	55	-28	13,326	326	475	91	383
	June	1	-30					
	July	52		13,705	365	473	91	381
			-29	13,264	238	470	91	379
	August	147	-28	12,984	78	478	91 '	387
	September	27	-26	13,313	322	469	93	376
	October	-3	-25	12,772	309	475	97	379
	November	266	-26	13,11 <del>9</del>	289	475	102	373
	December	24	-26	13,648	343	466	108	358
	AVERAGE	34	-28	13,481	287			
1981	January	113	-49	13,247	339	486	112	374
	February	-41	-58	12,902	198	494	116	378
	March	154	-63	12,383	210	514	121	393
	April	51	-62	12,091	198	532	134	397
	May	286	-62	12,309	312	544	150	394
	June	49	-65	12,415	123	548	163	385
	July	147	-65	12,261	257	559	173	386
	August	16	-63	12,908	204	547	185	362
	September	-295	-65	12,505	194	555	199	356
	October	166	-66	12,057	226	579	215	364
	November	279	-68	12,240	278	589	223	366
	December	52	-67	12,349	189	594	230	363
	AVERAGE	83	-63	12,470	228			
1982	January	-138	-66	11,638	238	606	235	371
	February	199	-66	11,252	304	612	241	371
	March	278	-68	11,277	321	614	249	366
	April	56	-68	11,386	174	611	256	355
	May	105	-65	11,801	262	609	261	348
	June	110	-67	12,498	94	607	264	
	July*	1	-63	R 12,447	229	R 612		343
	August**	NA	NA	11,945	NA	630	267 <i>274</i>	R 345 <i>356</i>
	AVERAGE	NA	NA	11,786	NA.			

<sup>1</sup> Includes lease condensate.

Sources: See "Sources" at the end of this section.

Ending stocks for 1973-1979 are totals as of December 31.
 Includes shipments to United States possessions and territories.
 Strategic Petroleum Reserve.

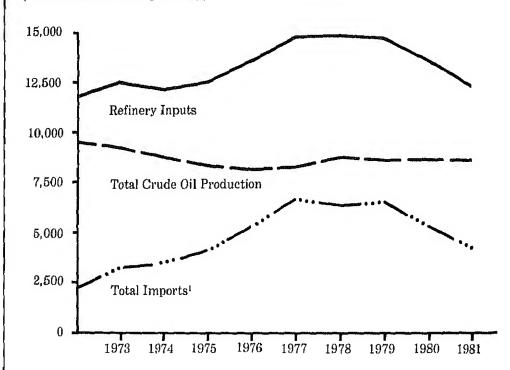
Totals may not equal sum of components due to independent rounding, NA = Not available, R = Revised data.

See Explanatory Note 5.2.

Preliminary statistics. See Explanatory Note 2.7.

Geographic coverage: The 50 United States and the District of Columbia.

# Crude Oil Supply and Disposition, Annual (Thousand Barrels per Day)



<sup>1</sup>Includes SPR imports.

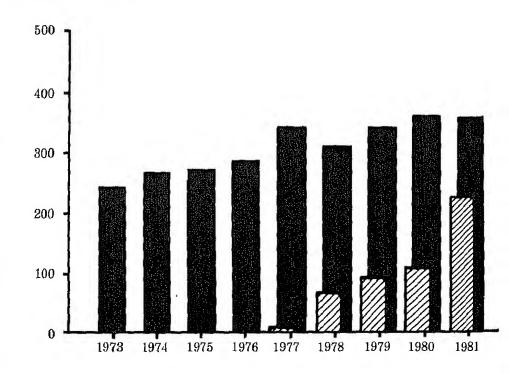
Source table: "Crude Oil Supply and Disposition."

Legend

Z SPR

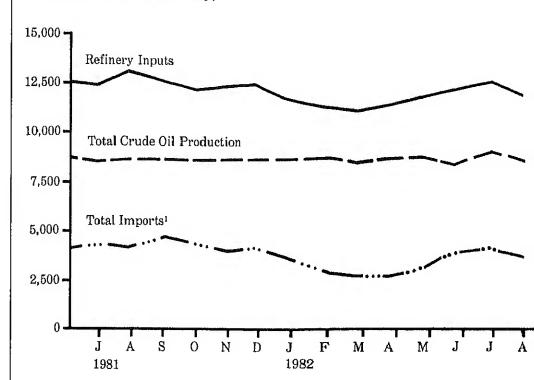
Other Primary

Crude Oil Ending Stocks, Annual (Millions of Barrels)



Source table: "Crude Oil Supply and Disposition."

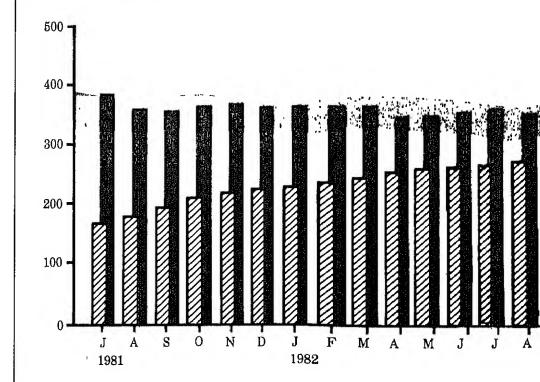
Crude Oil Supply and Disposition, Monthly (Thousand Barrels per Day)



Includes SPR imports.

Source table: "Crude Oil Supply and Disposition."

Crude Oil Ending Stocks, Monthly (Millions of Barrels)



Legend

ZZ SPR

Other Primary

Average Stock Range

<sup>1</sup>Average stock range (excluding SPR) based on 3 years of data. See Explanatory Note 2.5.

Source table: "Crude Oil Supply and Disposition."

#### Finished Motor Gasoline Supply and Disposition

			Supply			Dis	Ending Stocks <sup>1</sup>			
						Product Supplie		ed		
		Total Produc- tion	Imports <sup>2</sup>	Stock With- drawal <sup>2 3</sup>	Exports	Total	Unleaded <sup>5</sup>	Unleaded	Total Motor Gasoline <sup>4</sup>	Finished Motor Gasoline
				Thousand Ba	ırrels per Day			Percent of Total	Millions o	of Barrels
1973	AVERAGE	6,535	134	9	4	6,674	NA	NA	209	
1974	AVERAGE	6,360	204	-24	2	6,537	NA	NA	218	
1975	AVERAGE	6,520	184	-28	2	6,675	NA	NA	235	
1976	<b>AVERAGE</b>	6,841	131	10	3	6,978	NA	NA	231	
1977	AVERAGE	7,033	217	-72	2	7,177	1,976	27.5	258	
1978	AVERAGE	7,169	190	54	1	7,412	2,521	34.0	238	
1979	AVERAGE	6,852	181	2	(9)	7,034	2,798	39.8	237	
1980	January	6,991	141	-809	1	6,323	2,718	43.0	262	
	February	6,866	154	-423	(3)	6,596	2,969	45.0	275	
	March	6,519	155	-267	(s)	6,406	3,032	47.3	283	
	April	6,284	155	362	``1	6,800	3,021	44.4	272	
	May	6,316	132	283	i	6,729	2,980	44.3	263	
	June	6,569	148	-59	i	6,657	3,099	46,6	265	
	July	6,465	149	-132	ġ	6,743	3,131	46.4	261	
	August	6,452	141	56	1	6,648	0,101	47.2	259	
	September	6,383		28	7		3,135			
			106			6,510	3,054	46.9	258	
	October	6,131	152	380	1	6,662	3,110	46.7	247	
	November December	6,467 6,644	126 121	-359 -133	( <sup>s</sup> ) 1	6,234 6,632	3,123 3,421	50.1 51.6	257 261	
	AVERAGE	6,506	140	-66	1	6,579	3,067	46.6		
1981	January	6,715	138	-421	(s)	6,431	3,141	48,8	276	227
	February	6,308	111	-118	`′1	6,301	3,095	49.1	284	230
	March	6,213	171	-81	( <sup>8</sup> )	6,303	3,097	49.1	285	232
	April	6,114	186	303	(s)	6,602	3,284	49.7	272	223
	May	6,122	150	344	``1	6,615	3,115	47.1	259	213
	June	6,220	186	622	i	7,028	3,419	48.6	242	194
	July	6,405	151	268	(5)	6,823	3,424	50.2	228	186
	August	6,611	124	-95	(7)	6,637	3,344	50,2	233	189
	September	6,564	169							
	October	6,426		-70	2	6,662	3,338	50,1	237	191
	November		147	7	3	6,578	3,257	49.5	236	190
	December	6,564 6,586	148 197	-338 -91	1 11	6,373 6,681	3,198 3,444	50.2 51.5	248 253	201 203
	AVERAGE	6,405	157	28	2	6,588	3,264	49.5		
1982	January	6,181	114	-358	18	5,920	3,033	51.2	262	214
	February	5,917	133	28	8	6,070	3,145	51.8	262	213
	March	6,004	183	469	44	6,612	3,396	51.4	248	199
	April	6,104	177	641	33	6,890	3,494	50.7	223	180
'	May	6,322	163	188	23	6,650				
	June						3,415	51.3 50.0	215	174
		6,767 P.6.700	195	-136	14	6,812	3,561	52.3	220	178
	July* August**	R 6,788 <i>6,331</i>	200 NA	-165 NA	24 NA	R 6,799 <i>6,708</i>	3,574 NA	52,6 NA	226 <i>224</i>	183 NA
						•			224	IVA
	AVERAGE	6,305	NA	NA	NA	6,561	NA	NA		

<sup>1</sup> Ending stocks for 1973-1979 are totals as of December 31.

<sup>2</sup> Beginning in 1981 excludes blending components.

<sup>&</sup>lt;sup>3</sup> A negative number indicates an increase in stocks and a positive number indicates a decrease.

<sup>4</sup> Includes motor gasoline blending components.

<sup>&</sup>lt;sup>5</sup> Includes gasohol.

Totals may not equal sum of components due to independent rounding.

<sup>(\*) =</sup> Less than 500 barrels. NA = Not available. R = Revised data.

See Explanatory Note 5.3.

<sup>\*\*</sup> Preliminary statistics. See Explanatory Note 2.7.

Notes: Beginning in January 1981, the Energy Information Administration modified survey forms, definitions, and processing procedures. See Explanatory Note 4 on Changes for the effects on motor gasoline statistics. Annual stock changes for 1975 and 1981 were calculated using expanded survey coverage.

Geographic coverage: The 50 United States and the District of Columbia. Sources: See "Sources" at the end of this section.

			Sı	ıpply		Dispo	sition	Ending Stocks <sup>1</sup>	
		Total Production	Imports	Stock Withdrawai <sup>2</sup>	Crude Used Directly	Exports	Product Supplied		
		Thousand Barrels per Day					Millions of Barrels		
1973	AVERAGE	2,822	392	-115	•		3,092	196	
1974	AVERAGE	2,669	289	-115 -9	2	9	2,948	200	
1975	AVERAGE	2,654	155	40	2	2		209	
1976					2	1	2,851		
	AVERAGE	2,924	146	62	1	1	3,133	186	
1977	AVERAGE	3,278	250	-176	1	1	3,352	250	
1978	AVERAGE	3,167	173	93	1	3	3,432	216	
1979	AVERAGE	3,153	193	-34	1	3	3,311	229	
1980	January	3,014	179	526	1	7	3,714	212	
	February	2,766	237	716	1	8	3,712	192	
	March	2,558	193	445	Í	19	3,179	178	
	April	2,461	154	21	ż	2	2,635	177	
	May	2,474	126	-199	i	រំ	2,402	183	
	June	2.647	108	-439	i		2,317	197	
	July	2,690	117	-455 -557		(8)			
			-		2	. 3	2,249	214	
	August	2,462	77	-403	2	(8)	2,137	228	
	September	2,686	101	-201	2	(8)	2,587	232	
	October	2,590	115	215	1	(s)	2,920	226	
	November	2,703	133	111	1	(8)	2,949	222	
	December	2,891	166	556	1	(8) (8) (8)	3,615	205	
	AVERAGE	2,662	142	64	1	3	2,866		
1981	January	2,989	273	836	11	(8)	4,109	179	
	February	2,809	325	246	11	17	3,373	173	
	March	2,484	147	264	9	(a)	2,904	164	
	April	2,418	116	-9	10	`´ 3	2,532	165	
	May	2,454	179	-232	10	(s)	2,411	172	
	June	2,501	225	-270	g	(s)	2,464	180	
	July	2,395	179	-204	10	`′2	2,378	186	
	August	2,656	174	-450	8	(s) _	2,388	200	
	September	2,610	129	-235	10			207	
	October	2,485	119	197		1	2,513		
					9	5	2,803	201	
	November December	2,716 2,856	124 95	36 277	11 11	6 26	2,880	200	
	December	2,600	90	211	11	20	3,212	192	
	AVERAGE	2,613	173	38	10	5	2,829		
982	January	2,615	96	780	10	90	3,410	166	
	February	2,447	130	689	11	80	3,187	147	
	March	2,294	48	612	10	84	2,881	128	
	April	2,357	59	631	13	64	2,996	109	
	May	2,618	74	-184	10	75	2,444	114	
	June	2,731	100	-335	10	55	2,450	125	
	July*	R 2,734	R 124	R -761	11	24	R 2,084	R 148	
	August**	2,537	65	-447	NA	NA	2,142	156	
	AVERAGE	2,543	87	116	NA	NA	2,693		

Ending stocks for 1973 - 1979 are totals as of December 31.
 A negative number indicates an increase in stocks and a positive number indicates a decrease.

Totals may not equal sum of components due to independent rounding.

<sup>(</sup>s) = Less than 500 barrels per day, NA = Not available. R = Revised data.

'See Explanatory Note 5.4.

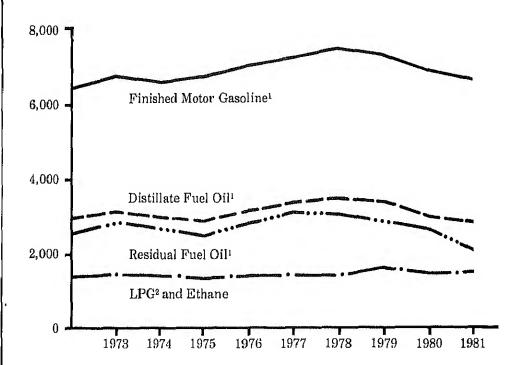
"Preliminary Statistics. See Explanatory Note 2.7.

Note: Beginning in January 1981, the Energy Information Administration modified survey forms, definitions, and processing procedures. See Explanatory Note 4 on Changes for the effects on Distillate Fuel Oil statistics.

Annual stock changes for 1975 and 1981 were calculated using expanded survey coverage.

Geographic coverage: The 50 United States and the District of Columbia. Sources: See "Sources" at the end of this section.

Products Supplied, Annual (Thousand Barrels per Day)

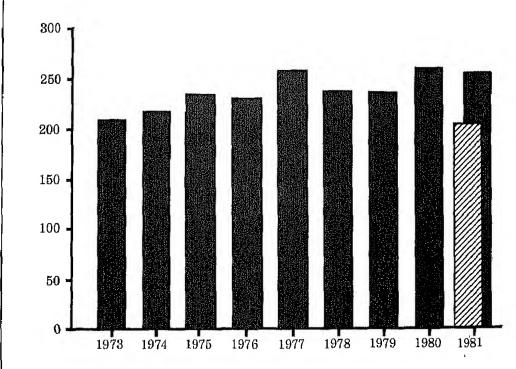


<sup>1</sup>Figures for 1979 and 1980 recast to account for data system changes in 1981. See Explanatory Note 4.

<sup>2</sup>Liquefied Petroleum Gases.

Source tables: "Finished Motor Gasoline Supply and Disposition," "Distillate Fuel Oil Supply and Disposition," "Residual Fuel Oil Supply and Disposition," "Liquefied Petroleum Gases and Ethane Supply and Disposition."

Motor Gasoline<sup>1</sup> Ending Stocks, Annual (Millions of Barrels)



Legend

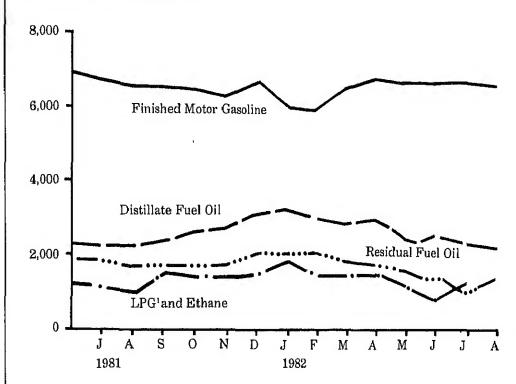
Total

Finished

Includes finished motor gasoline blending components.

Source table: "Finished Motor Gasoline Supply and Disposition."

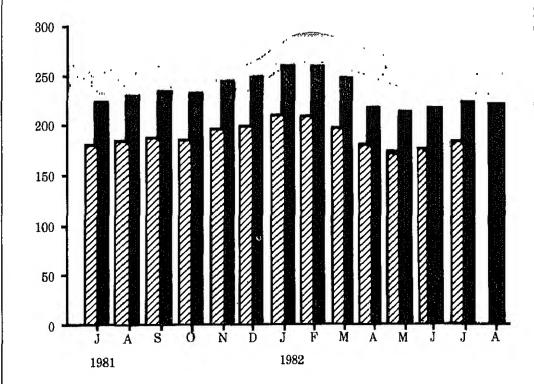
# Products Supplied, Monthly (Thousand Barrels per Day)



Liquefied Petroleum Gases.

Source tables: "Finished Motor Gasoline Supply and Disposition," "Distillate Fuel Oil Supply and Disposition," "Residual Fuel Oil Supply and Disposition," "Liquefied Petroleum Gases and Ethane Supply and Disposition."

# Motor Gasoline Ending Stocks, Monthly (Millions of Barrels)



### Legend

Total Motor Gasoline

Finished Motor Gasoline

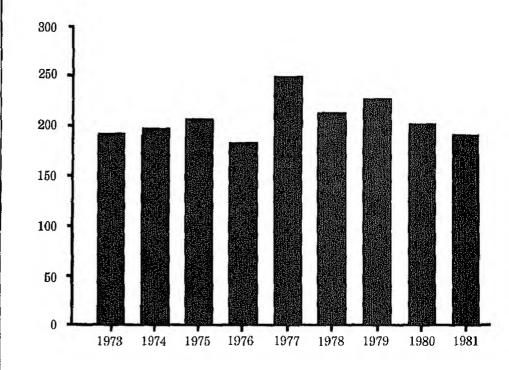
Average Stock Range<sup>2</sup>

Includes finished motor gasoline blending components,

<sup>2</sup>Average stock range for total motor gasoline based on 3 years of data. See Explanatory Note 2.5.

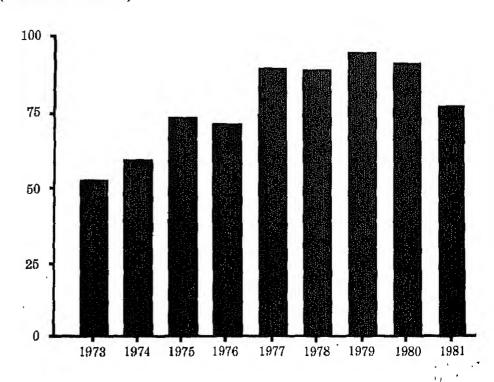
Source table: "Finished Motor Gasoline Supply and Disposition."

Distillate Fuel Oil Ending Stocks, Annual (Millions of Barrels)



Source table: "Distillate Fuel Oil Supply and Disposition."

Residual Fuel Oil Ending Stocks, Annual (Millions of Barrels)



Source table: "Residual Fuel Oil Supply and Disposition."

## Legend

Average Stock Range<sup>1</sup>

<sup>1</sup>Average stock range based on 3 years of data. See Explanatory Note 2.5.

Source table: "Distillate Fuel Oil Supply and Disposition."

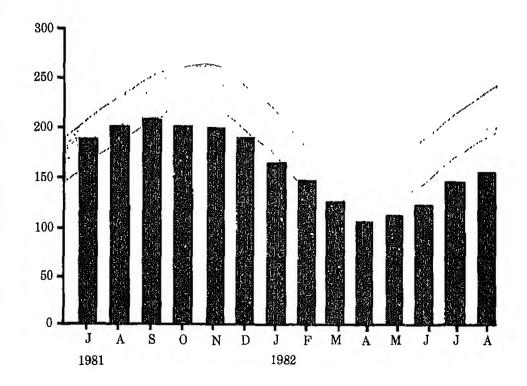
### Legend

Average Stock Range<sup>1</sup>

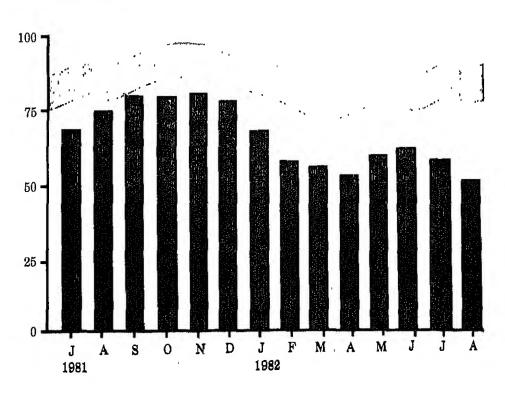
<sup>1</sup>Average stock range based on 3 years of data. See Explanatory Note 2.5.

Source table: "Residual Fuel Oil Supply and Disposition."

# Distillate Fuel Oil Ending Stocks, Monthly (Millions of Barrels)



# Residual Fuel Oil Ending Stocks, Monthly (Millions of Barrels)



			Su	pply	i	Dispo	sition	Ending Stocks <sup>1</sup>
		Total Produc- tion	Imports	Stock Withdrawai <sup>2</sup>	Crude Used Directly	Exports	Products Supplied	
				Thousand Bar	rels per Day			Millions o Barrels
973	AVERAGE	971	1,853	5	17	23	2,822	53
974		1,070	1,587	-17	13	14	2,639	60
	AVERAGE AVERAGE		1,223	2	15	15	2,462	74
975		1,235		5	17	12	2,801	72
976	AVERAGE	1,377	1,413	_				90
977	AVERAGE	1,754	1,359	-48	13	6	3,071	
978	AVERAGE	1,667	1,355	-1	13	13	3,023	90
979	AVERAGE	1,687	1,151	-15	12	9	2,826	96
980	January	1,771	1,338	-51	14	5	3,067	97
-	February	1,773	1,122	214	14	17	3,105	91
	March	1,584	976	87	14	2	2,658	88
	April	1,595	775	102	13	40	2,444	85
	May	1,509	812	-78	12	20	2,235	88
			749	-4	14	14	2,321	88
	June	1,575	787	71	13	60	2,291	86
	July	1,480	-				0.000	87
	August	1,444	875	-43	13	2	2,286	
	September	1,495	906	-31	10	21	2,359	88
	October	1,512	875	-100	9	70	2,227	91
	November	1,579	1,024	-74	10	88	2,451	93
	December	1,660	1,025	46	10	62	2,679	92
	AVERAGE	1,580	939	10	12	33	2,508	
981	January	1,612	1,015	302	32	65	2,896	82
	February	1,565	954	150	44	125	2,588	78
	March	1,424	699	100	48	145	2,126	75
	April	1,320	584	66	49	151	1,868	73
			741	-170	49	25	1,817	71
	May	1,223			49	76	2,037	6
	June	1,232	540	291		82		6
	July	1,174	830	2	48		1,971	
	August	1,231	819	-179	50	69	1,852	7
	September	1,292	841	-176	51	126	1,882	81
	October	1,238	786	8	54	202	1,884	81
	November	1,227	880	-49	53	203	1,909	8
	December	1,329	916	110	52	157	2,250	7
	AVERAGE	1,321	. 800	37	48	118	2,088	•
982	January	1,183	821	328	53	235	2,150	6
	February	1,136	928	358	53	213	2,261	5
	March	1,121	910	26	53	197	1,912	5
	April	1,162	762	124	52	234	1,867	5
	May	1,127	738	-175	52	191	1,551	5
			643	-49	50	217	1,504	6
	June	1,077		-49 Fl 51	49	239	R 1,466	R5
	July* August**	R 1,029 <i>998</i>	R 576 <i>543</i>	171	NA	NA	1,522	5
	AVERAGE	1,104	738	102	NA	NA	1,774	

<sup>1</sup> Ending Stocks for 1973-1979 are totals as of December 31.

Totals may not equal sum of components due to independent rounding.

<sup>&</sup>lt;sup>2</sup> A negative number indicates an increase in stocks and a positive number indicates a decrease,

NA = Not available, R = Revised data.

<sup>\*</sup> See Explanatory Note 5.4.
\*\* Preliminary Statistics. See Explanatory Note 2.7.

Notes: Beginning in January 1981, the Energy Information Administration modified survey forms, definitions, and processing procedures.

See Explanatory Note 4 on changes for the effects on residual fuel oil statistics.

Annual stock changes for 1975 and 1981 were calculated using expanded survey coverage.

Geographic Coverage: The 50 United States and the District of Columbia.

Sources: See "Sources" at the end of this section.

Liquefied Petroleum Gases and Ethane Supply and Disposition

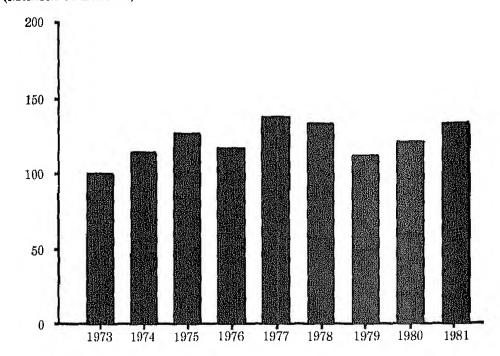
			Supply			Disposition		Ending Stocks <sup>1</sup>
		Total Production	Imports	Stock Withdrawai <sup>2</sup>	Refinery Inputs	Exports	Product Supplied	
				Thousand Bar	rels per Day			Millions of Barrels
1973	AVERAGE	1,600	132	-35	220	27	4 440	
1974	AVERAGE	1,565	123	-38	220	25	1,449	99
1975	AVERAGE	1,527	112	-35	246	26	1,406	113
1976	AVERAGE	1,535	130	24	260		1,333	125
1977	AVERAGE	1,566	161	-55		25	1,404	116
1978	AVERAGE	1,537	123		233	18	1,422	136
1979				12	239	20	1,413	132
19/9	AVERAGE	1,556	217	70	236	15	1,592	111
980	January	1,560	264	461	291	30	1,963	96
	February	1,581	252	209	252	26	1,764	90
	March	1,519	214	7	211	23	1,506	90
	April	1,546	18 <b>6</b>	-339	171	19	1,203	100
	May	1,538	181	-224	182	17	1,295	107
	June	1,528	184	-319	170	18	1,205	117
	July	1,485	172	-283	209	18	1,147	126
	August	1,507	158	-296	203	17	•	
	September	1,495	213	-80	228		1,149	135
	October	1,546	249	86		19	1,382	137
	November				259	24	1,597	134
	,	1,549	231	82	304	23	1,535	132
	December	1,567	289	373	319	23	1,888	120
	AVERAGE	1,535	216	-27	233	21	1,469	
1981	January	1,617	306	363	352	21	1,913	117
	February	1,593	327	173	303	21	1,769	112
	March	1,551	260	-4	257	20	1,530	112
	April	1,586	214	-236	231	26	1,308	119
	May	1,587	189	-258	220	19	1,279	127
	June	1,567	206	-208	237	24	1,304	133
	July	1,507	213	-258	215	17		141
	August	1,592	195	-242	235	149	1,229	
	September						1,160	149
	October	1,622	199	-75	287	21	1,438	151
		1,593	287	72	320	76	1,556	149
	November	1,571	280	86	383	58	1,495	146
	December	1,468	255	379	428	50	1,624	135
	AVERAGE	1,571	244	-18	289	42	1,466	
1982	January	1,546	314	480	398	67	1,873	122
	February	1,476	291	310	327	51	1,699	114
	March	1,523	223	145	289	74	1,528	109
	April	1,566	188	107	257	77	1,527	106
	May	1,583	186	-61	235	43	1,431	108
	June	1,571	192	-109	262	106	1,286	111
	July*	1,556	227	-10 <i>5</i> -5	253	37	1,487	111
	AVERAGE	1,547	231	122	288	65	1,546	

 <sup>1</sup> Ending stocks for 1973 - 1979 are totals as of December 31.
 2 A negative number indicates an increase in stocks and a positive number indicates a decrease.
 Totals may not equal sum of components due to independent rounding.

<sup>\*</sup> See Explanatory Note 5.5.

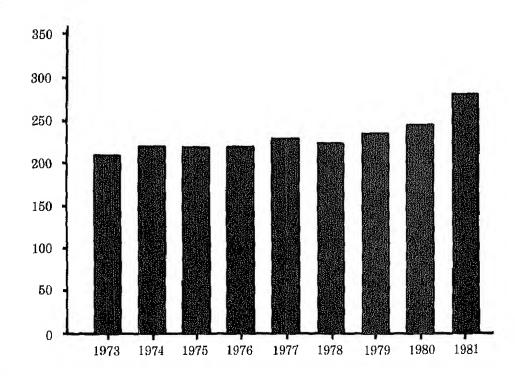
Note: Annual stock changes for 1975 and 1981 were calculated using expanded survey coverage. Geographic coverage: The 50 United States and the District of Columbia. Sources: See "Sources" at the end of this section.

Liquefied Petroleum Gases and Ethane Ending Stocks, Annual (Millions of Barrels)



Source table: "Liquefied Petroleum Gases and Ethane Supply and Disposition."

Other Petroleum Products<sup>1</sup> Ending Stocks, Annual (Millions of Barrels)



<sup>1</sup>Includes natural gasoline and isopentane, unfinished oils, gasoline blending components, jet fuels, kerosene, lubricants, and asphalt. Some gasoline blending components not included prior to 1981.

Source table: "Other Petroleum Products Supply and Disposition." ∡egend

Average Stock Range

<sup>1</sup>Average stock range based on 3 years of data. See Explanatory Note 2.5.

Source table: "Liquefied Petroleum Gases and Ethane Supply and Disposition."

### Legend

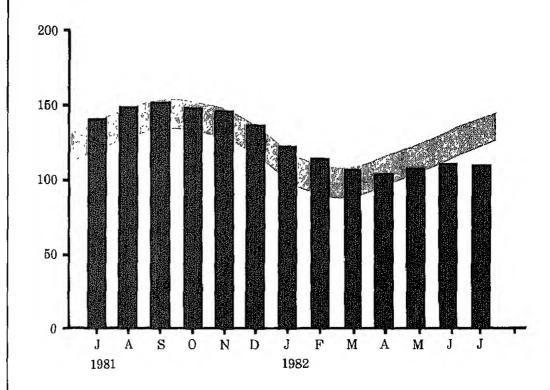
Average Stock Range<sup>2</sup>

'Includes natural gasoline and isopentane, unfinished oils, gasoline blending components, jet fuels, kerosene, lubricants, and asphalt.

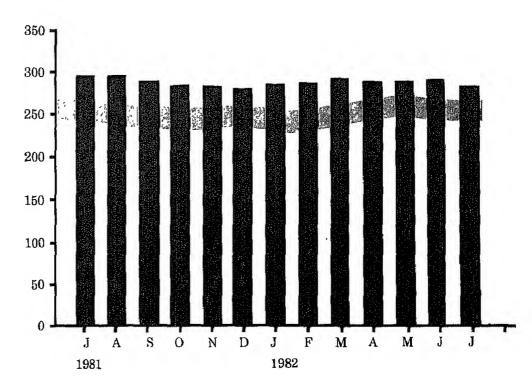
<sup>2</sup>Average stock range based on 3 years of data. See Explanatory Note 2.5.

Source table: "Other Petroleum Products Supply and Disposition."

# Liquefied Petroleum Gases and Ethane Ending Stocks, Monthly (Millions of Barrels)



# Other Petroleum Products<sup>1</sup> Endings Stocks, Monthly (Millions of Barrels)



Other Petroleum Products¹ Supply and Disposition

			Supply			Disposition		Ending Stocks <sup>2</sup>
		Total Produc- Tion	Imports	Stock Withdrawai <sup>3</sup>	Refinery Inputs	Exports	Products Supplied	
			<u> </u>	Thousand Ba	rrels per Day	<del> </del>		Millions of Barrels
1973	AVERAGE	3,693	502	-9	750	166	3,270	208
1974	AVERAGE	3,558	432	-28	665	174	3,123	218
1975	AVERAGE	3,424	277	-2	537	160	3,002	219
1976	AVERAGE	3,643	206	-5	524	175	3,145	220
1977	AVERAGE	3,912	205	-27	514	165	3,410	230
1978	AVERAGE	4,046	166	14	492	167		225
1979	AVERAGE		195				3,568	
10/0	AVERAGE	4,153	190	-37	352	209	3,749	238
1980	January	4,157	269	135	591	186	3,785	234
	February	4,181	167	-153	380	174	3,641	239
	March	4,128	219	-370	149	200	3,627	250
	April	4,105	238	-374	86	180	3,703	261
	May	4,018	222	-301	135	227	3,577	271
	June	4,016	226	-49	250	256	3,687	272
	July	3,873	188	82	356	209		270
	August	3,753	138	212	351		3,578	
				414 0F		221	3,532	263
	September	3,952	206	25	234	188	3,761	262
	October	3,737	220	175	351	193	3,588	257
	November	3,786	213	156	475	148	3,533	252
	December	3,792	209	15 <b>†</b>	362	194	3,596	247
	AVERAGE	3,958	210	-23	311	198	3,634	
1981	January	3,821	162	80	851	132	3,081	296
	February	3,723	182	-200	538	208	2,958	302
	March	3,722	230	<b>-5</b> 5	642	210	3,043	304
	April	3,711	230	24	733	192	3,040	303
	May	3,892	229	-58	594	238	3,231	305
	June	3,925	218	-29	656	197	3,261	306
	July	3,852	149	284	791	212	3,282	297
	August	3,876	276	-33	676	219		298
			285				3,225	
	September	3,718		215	883	176	3,159	291
	October	3,503	241	193	710	227	3,000	285
	November	3,579	262	33	784	154	2,935	284
	December	3,543	243	71	805	223	2,829	282
	AVERAGE	3,739	226	46	723	199	3,088	
1982	January	3,181	240	-102	602	180	2,536	284
	February	3,364	260	-116	646	138	2,724	287
	March	3,485	241	-204	734	161	2,627	294
	April	3,394	287	91	801	204	2,767	291
	May	3,298	309	198	823	210	2,769	285
	June	3,481	315	115	815	216	2,879	281
	July*	3,578	391	15	862	187	2,935	281
	AVERAGE	3,397	292	0	756	186	2,748	

Includes natural gasoline and isopentane, unfractioned stream, plant condensate, other liquids; and all finished petroleum products except finished motor gasoline, distillate

Note: Annual stock changes for 1975 and 1981 were calculated using expanded survey coverage. Geographic Coverage: The 50 United States and the District of Columbia. Sources: See "Sources" at the end of this section.

fuel oil, and residual fuel oil.

2 Ending Stocks for 1973-1979 are totals as of December 31.

<sup>&</sup>lt;sup>3</sup> A negative number indicates an increase in stocks and a positive number indicates a decrease. Totals may not equal sum of components due to independent rounding.

See Explanatory Note 5.6.

Crude Oil and Petroleum Product Imports from OPEC Sources

	Algeria	Libya	Saudi Arabia	United Arab Emirates	Indonesia	Iran	Nigeria	Venezue-	Other OPEC <sup>1</sup>	Total OPEC	Total Arab OPEC
_					Thousa	nd Barrels	per Day				L
1973	400	404	400								
AVERAGE	136 190	164 4	488 461	71	213	223	459	1,135	106	2,993	91!
AVERAGE 1975				74	300	469	713	979	88	3,280	75
AVERAGE 1976	282	232	715	117	390	280	762	702	122	3,601	1,38
AVERAGE 1977	432	453	1,230	254	539	298	1,025	700	134	5,066	2,42
AVERAGE 1978	559	723	1,380	335	541	535	1,143	690	287	6,193	3,18
AVERAGE 1979	649	654	1,144	385	573	555	919	845	226	5,751	2,96
AVERAGE	636	658	1,356	281	420	304	1,080	690	212	6,637	3,05
980											
anuary	503	618	1,576	202	454	95	1,054	786	179	5,467	3,03
ebruary	656	603	1,412	304	317	8	1,036	543	152	5,031	3,05
/larch	472	654	1,380	289	405	0	924	352	175	4,652	2,88
pril	546	683	1,300	150	374	0	734	343	240	4,369	2,86
lay	441	468	1,149	172	360	Ö	955	405	147	4,098	2,32
une	497	561	1,328	178	331	ŏ	998	409	106	4,408	2,59
uly	557	492	1,192	158	365	ŏ	752		-		
ugust	432	431						417	62	3,995	2,41
			1,139	142	289	0	792	406	112	3,743	2,22
eptember	375	505	1,112	107	299	0	736	425	111	3,670	2,18
october	465	478	1,044	182	348	0	728	482	95	3,821	2,22
lovember	493	500	1,201	105	348	0	624	595	78	3,944	2,33
December	423	658	1,301	83	288	0	958	610	101	4,423	2,48
VERAGE	. 488	554	1,261	172	348	9	857	481	130	4,300	2,55
1981		1									
lanuary	341	500	1,284	93	424	0	908	549	27	4,127	2,21
ebruary	381	468	1,122	93	406	Ö	866	463	92	3,891	2,06
/larch	352	485	1,027	47	328	Ö	771	360	54	3,425	1,91
prii	263	485	1,034	68	307	Ŏ	812	237	39	3,245	1,86
/lay	393	443	933	17	297	Ö	664	331	124	3,203	1,79
une	356	380	865								
				60	367	0	528	248	118	2,922	1,70
uly	333	251	1,073	80	340	0	651	466	38	3,233	1,78
Lugust	348	274	1,082	61	377	0	321	523	84	3,070	1,76
September	336	154	1,477	96	371	0	323	359	149	3,264	2,06
October	242	147	1,342	90	427	0	412	389	172	3,220	1,82
November	210	132	1,270	112	353	0	517	535	56	3,184	1,72
December	176	122	1,045	158	400	0	684	411	132	3,129	1,50
AVERAGE	311	319	1,129	81	366	0	620	408	90	3,323	1,84
1982	051	101	A	0.77	070	•	205	076	4.00	0.040	4 A~
January	254	161	877	87	273	0	662	376	128	2,818	1,37
ebruary	139	92	692	79	236	0	579	347	102	2,267	1,04
/arch	91	37	555	155	200	0	503	399	91	2,032	86
pril '	85	0	479	122	215	0	427	411	79	1,818	70
Λaγ	179	ō	601	116	236	Õ	211	414	54	1,811	89
lune	93	ŏ	593	94	215	72	537	361	110	2,075	79
luly	122	ő	644	123	327	69	910	349	95	2,640	92
AVERAGE	138	41	635	111	244	20	547	380	94	2,210	94

Includes Ecuador, Gabon, Iraq, Kuwalt, and Qatar.
 Includes Algeria, Libya, Saudi Arabia, United Arab Emirates, Iraq, Kuwalt, and Qatar.
 Totals may not equal sum of components due to Independent rounding.
 Note: Beginning in October 1977, Strategic Petroleum Reserve Imports are included.
 Geographic coverage: The 50 United States and the District of Columbia.
 Sources: See "Sources" at the end of this section.

Crude Oil and Petroleum Product Imports from Non-OPEC Sources

	Bahamas	Canada	Mexico	Netherlands Antilles	Trinidad and Tobago	United Kingdom	Puerto Rico <sup>1</sup>	Virgin Islands <sup>†</sup>	Other <sup>2</sup>	Total
				Tho	usand Barr	els per Day		<u>.L</u>	L	
1973		***							<del></del>	
AVERAGE 1974	174	1,325	16	585	255	15	99	329	465	3,263
AVERAGE 1975	164	1,070	8	511	251	8	90	391	340	2,832
AVERAGE 1976	152	846	71	332	242	14	90	406	300	2,454
AVERAGE 1977	118	599	87	275	274	31	88	422	353	2,247
AVERAGE 1978	171	517	179	211	289	126	105	486	550	2,614
AVERAGE 1979	160	467	318	229	253	180	94	429	484	2,613
AVERAGE	147	538	439	231	190	202	92	431	548	2,819
1980										
January	175	570	545	289	239	296	57	467	492	3,131
February	111	540	477	205	192	105	95	536	652	2,914
March	124	460	460	184	189	232	101	449	601	2,800
April	56	459	546	231	143	182	76	425	619	2,737
May	77	419	576	176	221	124	88	303	496	2,481
June	77	409	627	197	162	146	91	314	465	2,486
July	43	378	460	242	180	115	90	378	376	2,262
August	62	319	646	255	159	196	85	264	463	2,449
September	58	458	550	213	205	218	52	343	473	2,569
October	70	475	605	230	114	134	107	372	450	2,557
November	22	470	459	264	158	157	108	391	435	2,464
December	54	502	445	212	149	199	109	423	378	2,471
AVERAGE	78	455	533	225	176	176	88	388	491	2,609
1981										
January	39	543	401	198	150	233	89	494	552	2,701
February	84	546	437	227	163	271	46	481	626	2,881
March	74	472	488	227	93	263	45	370	571	2,603
April	68	412	418	198	139	402	40	365	380	2,423
May	122	365	522	213	105	368	58	344	474	2,573
June	51	353	538	196	124	397	67	262	525	2,513
July	77	382	384	212	178	553	50	206	541	2,583
August	69	378	489	255	123	592	68	184	539	2,698
September	111	423	708	163	169	528	72	265	661	3,100
October	63	449	669	161	121	351	60	303	562	2,739
November	63	547	628	168	108	253	76	294	421	2.557
December	70	501	587	148	125	280	73	367	563	2,714
AVERAGE	74	447	522	197	133	375	62	327	534	2,672
1982										
January	28	509	426	179	106	346	62	334	425	2,415
February	50	533	489	221	120	132	38	354	487	2,424
March	43	435	503	189	118	293	62	307	479	2,429
April	67	357	467	180	166	247	36	266	682	2,468
May	76	416	767	152	95	516	47	302	603	2,974
June	32	462	797	141	129	539	68	322	673	3,153
July	30	527	783	158	111	433	38	369	674	3,122
AVERAGE	46	462	606	174	120	361	49	322	575	2,715

U.S. Possessions.

ilng. orts are included. umbia.

# Sources

- 1973 through 1976: Bureau of Mines, U.S. Department of the Interior, "Petroleum Statement, Annual" and PAD Districts Supply/Demand, Annual," Mineral Industry Surveys.
- 1977 through 1980: Energy Information Administration, U.S. Department of Energy, "Monthly Petroleum Statistics Report," (unleaded gasoline category).
- 1977 through 1980: Energy Information Administration, U.S. Department of Energy, "Petroleum Statement, Annual" and "PAD Districts Supply/Demand, Annual, "Energy Data Reports.
- January 1981 through December 1981: Energy Information Administration, U.S.
   Department of Energy, "Petroleum Supply Annual."
- January 1982 through July 1982: Detailed statistics in this issue. (See Explanatory Notes 5.1 through 5.6).
- August 1982: Estimates based on EIA weekly data (except domestic crude oil production). See Explanatory Note 2.2).
- January 1982 through August 1982: Domestic crude oil production estimate based on historical statistics from State Conservation Agencies and the U.S. Geological Survey. (See Explanatory Note 2.7).

# Detailed Statistics

		,	

Table 1, U.S. Petroleum Balance, July 1982

		Current	Month	Year-to	
		Thousand Barrels	Thousand Barrels per Day	Thousand Barrels	Thousand Barrels per Day
	rude Oil (including Lease Condensate)				
	Field Production				
(1)	Alaska	E 53,165	1,715	E 361,347	1,704
(2)	Lower 48 States	E 214,952	6,934	E 1.473,783	6,952
(3)	Total U.S.	E 268,117	8,649	E 1,835,130	8,656
	Net Imports		0,0 /4	- 1/444/100	0,000
(4)	Imports (Gross Excluding SPR)	128,572	4,147	682,715	3,220
(5)	SPR Imports	3,014	97	33,637	159
(6)	Exports	7,105	229	49,123	232
(7)	Imports (Net Including SPR)	124,481	4,016	667,229	3,147
	Other Sources				
(8)	SPR Withdrawal (+) or Addition (-)	-3,013	-97	-36,813	-174
(9)	Other Stock Withdrawal (+) or Addition (-)	-1,803	-5B	18,898	89
(10)	Used Directly and Losses	-1,964	-63	-14,005	-66
(11)	Total Other Sources	33	1 040	23,183	109
(12) (12) (	Frude Input to Refineries	-6,747 385,853	-218 12.447	-8,737	-41
(13)	3) = (3) + (7) + (12)	303,653	12,447	2,493,623	11,762
N	atural Gas Plant Liquids (NGPL)				
	Field Production	47,156	1,521	228 000	4 540
(15)	Imports 2	1,542	50	326,398	1,540
	Stock Withdrawal (+) or Addition (-) 2	-829	-27	3,701 676	17 3
(17)	Total NGPL Supply	47.869	1,544	330,775	1,560
	ther Liquids	,	1,0 , ,	200,110	1,000
	Unfinished Oils and Gasoline Blending Components, Total				
(18)	Stock Withdrawal (+) or Addition (-)	-1,399	-45	245	1
(19)	Imports	5,310	171	31,687	149
(20)	Other Hydrocarbons and Alcohol New Supply (Field Production)	1,799	58	10,432	49
(21)	Refinery Processing Gain 1	16,860	544	108,651	513
(22)	Crude Used Directly	1,863	60	13,247	62
(23)	Total Other Liquids	24,433	788	164,262	775
	(23) = (18) through (22)	455		·	
	otal Production of Products 3	458,155	14,779	2,988,660	14,097
•					
	et Imports of Refined Products 3	40.000	4.007		
	Imports (Gross)	40,209	1,297	292,482	1,380
(2 <del>0</del> ) (27)	Exports	15,867	512 785	118,958	561
(21)	Imports (Net)	24,343	700	173,524	819
(28) T	otal New Supply of Products	482,498	15,564	3,162,184	14,916
	8) = (24) + (27)			3,102,104	14,910
(29) F	Lefined Products Stock Withdrawal (+) or Addition (-) 3	-24,597	-793	108,735	503
(30) T	otal Petroleum Products Supplied for Domestic Use	457,901	14,771	3,268,919	15 410
(3	0) = (28) + (29)		,	3,200,313	15,419
(31)	Finished Motor Gasoline	210,759	6,799	1,386,840	6,542
(32)	Naphtha-Type Jet Fuel	6,850	221	44,206	209
	Kerosene-Type Jet Fuel	23,721	765	168,979	797
(34)	Kerosene	2,953	95	26,998	127
(35)	Distillate Fuel Oil	64,610	2,084	589,409	2,780
(36)	Residual Fuel Oil	45,437	1,466	383,507	1,809
(37)	Liquefled Petroleum Gases and Ethane	46,111	1,487	325,464	1,535
(38)	Other	70,915	2,288	415,703	1,961
(39)	Total Reclassified 1	-13,456	-434	-72,185	-340
(40)	Total Product Supplied(40) = (31) through (39)	457,901	14,771	3,268,920	15,419
	nding Stocks, All Oils	044.500		DAA EEO	
(41) (40)	Crude Oil and Lease Condensate (Excluding SPR)	344,566 367,154		344,566	
(42) (42)	Strategic Petroleum Reserve (SPR)	267,154 117,790		267,154 117,790	
(43) (44)	Unlinished Oils	43,744		43,744	-
(44) (45)	Natural Gasoline and Unfractionated Stream	14,843		14.843	
		605,810		605,810	
7 1	Finished Relined Products 3				
(46) (47)	Finished Refined Products 3	1,393,907		1,393,907	

<sup>A balancing item.

Includes isopentane, natural gasoline, unfractionated stream, and plant condensate only.

For products included see Explanatory Note 5.7.

E —Estimated.

Not Applicable.

Note: Total may not equal sum of components due to independent rounding.

Sources and estimation procedures: See Explanatory Notes 1, 2, and 5.7.</sup> 

Table 2. Supply and Disposition of Crude Oil and Petroleum Products, July 1982 (Thousands of Barrels)

			J.	Supply				Disposition		
Contribodity	Field Produc- tion	Refinery Produc- tion	Imports	Stock With- drawal (+) or Addr- tion (-)	Unac- counted For Crude	Crude Used Directly and Losses2	Refinery Inputs	Exports	Products Supplied	Ending Stocks
Crude Oil (including lease condensate)	E 268,117	0	131,586	4,816	32	-1,964	385,853	7,105	0	611,720
Mathematical Contract of the state of the st		000		****	,	•	,	•		
וומנווויפו נאצ רופחו בקטומי פחם בחכו	40,149	OKY R	490'0	8	ο (	<b>3</b>	15,391	1,154	47,097	125,342
Natural Gasoline and Isopentane	5,616	0	1,316	274	0	0	6,242	0	<b>3</b>	1,7,1
Unifractionated Stream	1,233	0	0	-1,213	0	0	0	0	ଷ	5,576
Plant Condensate	974	0	227	110	0	0	1.308	0	2	1,556
Liquefied Petroleum Gases and Ethane	38,926	9,296	7,042	-159	0	0	7,841	1,154	46.111	111,099
Ethane	7,951	121	1.721	455	0	a	108	(3)	10.140	5.297
Propane	13,724	8.364	1.324	-335	0	0	183	129	22 253	63.527
Butane	6 839	723	1.401	-566	c	· C	4 458	513	3.477	22 272
Butane-Propane Mixtures	134	12	202	5	, c	· c	10	į		1052
Ethane-Propane Modures	6.950	, <b>-</b>	1.888	611	0	0	9	o C	9 449	11 184
	3,328	-19	0	-336	0	0	2,991	0	-18	7,767
Other Liquids	1 799	c	5.340	-1 399	c	c	19 166	c	-13 455	161 534
Other Hydrocarbons and Alcohol	1 799	<b>•</b> •	}	, e	) C	, c	1 706	<b>-</b>	2	231
		o c	4 155	-27.5	o c	9 6	21.41	o c	-10 22	117 790
Components	0	0	1,156	-1.160	• •	0	3.357	0	-3.361	43.083
	0	0	0	4	. 0	0	6		140	430
						1	}	•		
Finished Petroleum Products	407	427,974	33,167	-24,438	0	1,863	0	14,713	424,260	494,711
Finished Motor Gasoline	8	210,385	6,205	-5,107	0	٥	0	758	210,759	182,945
Finished Leaded Motor Gasoline	अह	99,548	3,905	-2,768	0	0	0	758	096'66	93,145
Finished Unleaded Motor Gasoline	Φ.	110,736	2,300	-2,337	0	0	0	0	110,699	89,761
Gasohol	0	101	0	cy	0	0	0	o	66	39
Finished Aviation Gasoline	80	836	<u>(s)</u>	φ	o	O.	0	0	911	2,381
Naprina-1ype Jet ruel	0 (	6,928	250	328	0	0	0	٥	6,850	6,416
Versein 196 Jet Fuel	<b>-</b>	22,949	SZ :	579	0 (	0 (	0 (	35	23,721	33,415
Detailete First On	4 6	2,053	2 48	149	<b>5</b> (	ם נ	<b>-</b>	- 200	558.2	2000
Besidual Fuel Oil	v c	21,00	17.843	1.586	<b>5</b> C	4 50 50	<b>&gt;</b> c	7,406	45,439	58.063
Naphtha < 400 Deg. for Petro Feed. Use	0	4.379	3.753	25.25	0	0	0	501	8 231	2,008
Other Oils > 400 Deg. for Petro. Feed. Use	0	8,311	0	-283	0	0	0	469	7.559	2.076
Special Naphthas	57	2,023	330	-145	0	0	0	36	2.203	3,606
Lubricants	0	4,556	330	-102	0	0	0	528	4,256	13,518
Waxes	0	391	&	<b>3</b> 2	0	0	0	37	437	758
Petroleum Coke ,	0	13,361	0	-398	0	0	0	4,477	8,486	5,854
Asphalt	0	13,069	214	3,516	0	0	0	51	16,748	22,068
Road Oil	0	5	0	<del>7</del>	0	0	0	0	ထ	8
Still Gas	0	18,959	0	0	0	0	0	0	18,959	0
Miscellaneous Products	235	2,462	ო	-537	0	0	٥	23	2,111	3,382
Total	317,072	437,270	178,648	-31,641	35	-101	420.410	22.972	457,901	1,393,907

1 Unaccounted for crude oil is a balancing item.
2 Total equals refinery fuel use and loss.
(s) Less than 500 barrels.
E = Estimated
Note: Total may not equal sum of components due to independent rounding.
Sources and estimation procedures: See Explanatory Notes on Data Collection and Estimation.

Table 3. Year-to-Date Supply and Disposition Statistics of Crude Oil and Petroleum Products, January - July 1952 (Thousands of Barrels)

			S	Supply				Desposition		
Commodity	Field Produc- tion	Refinery Produc- tion	Imports	Stock With- drawal (+) or Addi- tion (-)	Unac- counted For Crude	Crude Used Directly and	Refinery	Exports	Products Supplied	Ending Stocks
Crude Oil (including lease condensate)	E 1,835,130	0	716,352	-17,915	23,184	-14,005	2,493,623	49,123	0	611,720
	1									
Natural Gas Plant Liquids and LRGs	322,970	56,763	52,688	24,228	0	0	106,786	13,801	336,062	125,942
Natural Gasoline and Isopentane	43,440	0	2,515	1,682	0	0	37,304	0	10,332	7,711
Unfractionated Stream	1,248	0	0	-1,024	٥	0	80	0	216	5,576
Plant Condensate	7,181	0	1,186	18	0	0	8,337	0	4	1.556
Liquefied Petroleum Gases and Ethane	271,101	56,763	48,986	23,552	0	0	61,137	13.801	325.464	111,099
Ethane	58,230	1,035	11,652	-385	0	0	1,230	-	69 304	5 297
Propane	98,579	52,759	12,339	12,030	0	0	842	6.740	168 125	63 527
Butane	46,482	2,391	11,521	4,982	0	0	34.163	7.060	24 152	22 272
Butane-Propane Mixtures	807	602	5.086	701	0	0	1034	C	6.161	1 050
Ethane-Propane Mixtures	43,982	0	8,389	5,250	0	0	,	¢	57,620	11 184
Isobutane	23,021	-24	0	971	0	0	23,867	0	101	7,767
Other Limite	40.400	•			•	1				
Other Hydrocathons and Alrebol	10,432	<b>3</b>	41,067	2 8	9 (	<b>D</b> (	114,549	0	-72,185	161,534
The Tipe of Otle	204,01	<b>5</b> 6	0.00	3	<b>-</b>	0	10,409	0	0	231
Motor Gasoline Blending Components	<b>&gt;</b> c	<b>5</b>	25,000	-6,442	0	0	63,732	0	-45,174	117,790
Ariotion Cooping Disading Commencers	<b>.</b>	<b>&gt;</b> (	989'9	6.443	0	0	40,722	0	-27,587	43,083
Aviacon Gasonne pienoing Components	0	0	0	561	0	0	-314	0	575	430
Finished Petroleum Products	3.430	2,766.846	243.495	83 183	c	13.267	•	100	2005.044	404.744
Finished Motor Gasoline	385	1 225 584	35 303	20 524	•	1	<b>a</b> c	200,000	3,000,044	17,400
oline	399	638.692	2,50	14 940	<b>&gt;</b> C	<b>&gt;</b> C	> 0	900	300000	04,400
Finished Unleaded Motor Gasoline	20	696.183	13.767	2 2 2	0	0 0		0,00	770,070	95,140
Gasohol , married and a second	0	402	0	8	0	<b>o</b> c	o 0	o e	550,017	39,761
Finished Aviation Gasoline	396	4,751	-	352	c			· c	20.4	2 281
Naphtha-Type Jet Fuel	0	42,728	903	88	0	0	0	, E	44 206	6.416
Kerosene-Type Jet Fuel	2	163,806	5,296	596	0	٥	۵	721	168,979	33,415
Kerosene	27	23,259	2,037	1,956	٥	0	0	280	26,998	9.087
Ustillate Fuel Oil	14	539,235	19,013	43,391	٥	2,287	0	14,534	589,409	148,150
Mesiqual rulei Oli	ο,	237,240	162,498	19,029	0	10,960	0	46,220	383,507	58,963
Naphrha < 400 Deg for Petro. Feed.	0	33,477	11,566	461	0	¢	0	874	44,631	2,008
Canal Mandala Tor Petrochem Feedstock	0 8	58,455	0	978	0	0	0	4,180	53,949	2,076
Special Naphulas	69c	10,948	3,929	320	0	0	0	1,276	14,529	3,606
LUONGANIS mm.mmmmmmmmmmmmmmmmmmmmmmmmmmm	0	30,863	1,700	786	0	٥	0	3,533	29,816	13,518
Waxes	0	3,015	<del>1</del> 88	88	0	0	0	75	2.931	758
Petroleum Coke	0	86,046	0	-1,352	0	0	0	27.819	56.875	5.854
Asphalt	0	62,947	890	-2,481	0	٥	0	156	61.200	22.068
Road Oil	0	460	2	8	0	0	0	0	404	260
Still Gas	0	117,353	0	0	0	<b>a</b>	0	0	117.353	, -
Miscellaneous Products	2,033	16,679	66	£09-	0	0	0	291	17,917	3,382
Total	2 174 961	903 600 6	4 044 000	1		i				
44490,4444,aammingangangangangangangangangangangangangan	4,111,201	6,043,003	1,044,222	147,82	23,784	86/-	2,714,958	168,081	3,268,920	1,393,907

Unaccounted for crude oil is a balancing item.
 Total equals refinery fuel use and loss.
 Estimated.
 Note: Total may not equal sum of components due to independent rounding.
 Sources and estimation procedures: See Explanatory Notes on Data Collection and Estimation.

Table 4. Daily Average Supply and Disposition of Crude Oil and Petroleum Products, July 1982 (Thousand Barrels per Day)

			J	Supply				Disposition	
Commodity	Field Produc- tion	Refinery Produc- ton	Imports	Stock With- drawai(+) Addi- ton(-)	Unac- counted For Crude	Crude Used Directly and	Refinery Inputs	Exports	Products Supplied
Crude Oil (including lease condensate)	E 8,649	0	4,245	-155	-	63	12,447	229	0
Natural Gas Plant Lionids and LRGs	1.508	300	776	a.	c	c	307		1 540
Natural Gasoline and Isopentane	181	3	42	9 0	<b>o</b> c	9 6	6 C	š <sup>c</sup>	5 50
Unfractionated Stream	40	· c	, 0	9 6	•		7	•	<u>,</u> ,
Plant Condensate	3 5	<b>o</b> c	<b>&gt;</b>	) 4	<b>o</b> c	<b>&gt;</b> C	၁ င့	<b>-</b>	- 8
Liquefied Petroleum Gases and Ethane	1 256	300	200	י יל	o c	<b>,</b> c	2000	2 6	1 407
Ethane	256	4	<sup>38</sup>	5	o a	0 0	3 60	(8)	726
Propare	£4	270	5	Ŧ	0	0	) <b>(</b> 0		7.18
Butane	ផ	52	45	-18	0	0	144	17	112
Butane-Propane Mixtures	4	2	ß	<u>(8</u>	0	0	က	0	8
Ethane-Propane Mixtures	224	0	5	8	0	0	0	o	305
Isobutane	107	٦	0	F	0	0	96	0	7
Other ! jouids	8	c	121	37	c	c	9	c	Š
Other Hydrocarbons and Alcohol	3 27	• c		£ 8	<b>o</b> c	<b>3</b> C	910	<b>3</b> C	<b>\$</b> °
	3 =	0	134	٩ 2	o c	o c	S T		066
Motor Gasoline Blending Components	0	0	37	37	0	• •	3 5	9 0	20 F
Awation Gasoline Blending Components	0	0	0	****	0	0	9	0	T.
Finished Petroleum Products	. <del>1</del>	13,806	1,070	-788	0	9	0	475	13,686
Finished Leaded Motor Gasoline	<b>,-</b>	9,787	200	-165	00	00	00	\$ 8	6,799
Finished Unleaded Motor Gasoline	- c	25.5	274	3 4	o c	o c	0 0	4 <	C 75
Gasohol	• 6	7 6	2 0	) ()	0 6	<b>-</b>	<b>&gt;</b> C	<b>.</b>	1,0,0
Finished Aviation Gasoline	n	22	(S)	(S)	o c	<b>o</b> c	o c	o ¢	, S
Naphtha-Type Jet Fuel	0	SZ Z		7	0	0	0	0	22.5
Kerosene-Type Jet Fuel		740	7	19	0	0	0	-	765
Kerosene	<b></b>	98	ıΩ	S)	0	0	0	(s)	95
Distulate Fuel Off		2,734	124	-761	0	7	0	24	2,084
North 400 Doc to Date Total 112	0 (	1,029	576	52	0	49	0	239	1,466
Other Oile 1 400 Dea for Botto East 150	<b>-</b>	141	121	~ (	0 (	۰ ۵	0 1	m ;	789
Contact Oils > 400 Deg. 10t Perio, reed. Use	<b>&gt;</b> (	8 8	<b>&gt;</b> ;	D	0 0	0 0	0 (	<u>र</u>	24.
I which the	V C	1 2	= ;	ဂု	<b>&gt;</b> (	<b>&gt;</b> (	> (	N Į	<b>~</b>
Wash	0	74.	= 1	ን የ	<b>&gt;</b> (	<b>&gt;</b> (	0	<u> </u>	13/
Datalara Caka	<b>.</b>	3 5	- c	A Ç	<b>&gt;</b> 6	<b>-</b>	0 0	- ;	4 5
Achalt	<b>.</b>	7 6	1 C	2 5	0	<b>.</b>	<b>5</b> C	44.	4/2
DAN O	<b>,</b>	7	~ 6	2,	<b>-</b>	<b>o</b> 6	<b>&gt;</b> 6	7 0	₹`
CALL CALL	<b>&gt;</b> c	N G	0	Т °	0	<b>-</b>	0 (	<b>5</b>	- 6
Medallanam Dadude	<b>.</b>	219	<b>3</b>	j c	<b>-</b>	<b>-</b>	<b>-</b>	<b>o</b> (	612
Miscellations rioddes	Ď.	R	<u>e</u>	<u>}</u> -	0	-	0	N	8
Total	10,228	14,105	5,763	-1,021	٣-	ማ	13,562	741	14,771

<sup>1</sup> Unaccounted for crude oil is a balancing item.
2 Total equals refinery fuel use and loss.
(s) Less than 500 barrels per day.
E = Estimated.
Note: Total may not equal sum of components due to independent rounding Sources and estimation procedures: See Explanatory Notes on Data Collection and Estimation.

Table 5. Year-to-Date Daily Average Supply and Disposition of Crude Oil and Petroleum Products, January - July 1982 (Thousand Barrels per Day)

			J.	Surok				Disposition	
Commodity	Field Produc- tion	Refinery Produc- tion	Imports	Stock With- drawal(+) Addi- tion(-)	Unac- counted For Crude	Crude Used Directly and Losses2	Refinery Inputs	Exports	Products Supplied
Crude Oil (including lease condensate)	€ 8,656	0	3,379	22	109	98	11,762	232	0
Natural Gas Plant Houlds and LRGs	1.523	268	249	114	0	0	504	8	1,585
Natural Gasoline and Isopentane	202	0	12	80	0	0	176	0	49
Unfractionated Stream	9	0	0	4	0	0	(8)	0	-
Plant Condensate	8	0	9	(S)	0	0	39	0	(s)
Liquefied Petroleum Gases and Ethane	1,279	568	231	111	0	0	288	83	1,535
Ethane	275	5	55	7	٥	0	9	(s)	327
Propare	465	249	28	27	0	0	4	35	793
ButaneButane	219	Ξ,	<b>7</b> 5	<b>X</b>	0	0	161	8	114
Butane-Propane Mixtures	4	m ·	24	က	0	0	<b>Ω</b>	0	ଷ୍ଟ
Ethane-Propane Mixtures	207	૦ જ્	<del>4</del> c	52 <sub>1</sub>	00	00	(s) 113	0 0	272 (s)
Social de la company de la com	6	D	>	ז	•	•	2	•	£
Other Liquids	49	0	149	*	0	0	540	0	-340
Other Hydrocarbons and Alcohol	49	0	0	<u>(S</u>	0	0	49	0	0
Unfinished Okls	0	0	118	ခို	0	0	301	0	-213
Motor Gasoline Blending Components	0	0	32	30	0	٥	192	0	-130
Aviation Gasoline Blending Components	0	0	0	-	0	۵	٦	0	ო
Finished Petroleum Products	Ā	13.051	1 149	363	c	S	c	495	14 175
Finished Motor Gaenine		200	167	100	) C	3 0		200	6 5.42
Finished Leaded Motor Gasoline	10	200	5 6	ñ F	<b>o</b> c	<b>&gt;</b> C	· c	7	3 163
Finished Unleaded Motor Gasoline	(8)	3 284	3 6	8	0	00	· c	0	3.375
	0	6	C	(5)	0	0	0	0	e e
Finished Aviation Gasoline	ο (1)	8	) (S)		0	0	0	0	. Se
Naphtha-Type Jet Fuel	0	202	4	l en	0	0	0	(S)	209
Kerosene-Type Jet Fuel		773	53	m	0	0	0	ო :	797
Kerosene	(S)	110	1 2	· თ	0	0	0	-	127
Distillate Fuel Oil	(B)	2,544	8	205	0	Ŧ	0	69	2,780
Residual Fuel Oil		1,119	767	8	0	52	0	218	1,809
Naphtha < 400 Deg. for Petro. Feed. Use	0	158	55	8	0	0	0	4	211
Other Oits > 400 Deg, for Petro. Feed. Use	0	276	0	የ	0	0	0	8	<del>7</del> 53
Special Naphthas	ო	52	19	8	٥	0	0	ထ	69
Lubricants	0	146	89	4	0	0	0	17	141
Waxes	0	4	-	8	0	0	0	₩	4
Petroleum Coke	0	406	0	φ	0	0	0	131	<b>88</b>
Asphalt	0	282	4	-12	0	0	0	-	583 783
Road Oil	0	8	<b>©</b>	•	0	0	0	0	Ø
Stal Gas	0	<b>1</b> 53	0	0	٥	0	0	0	554
Miscellaneous Products	<b>P</b>	79	9	ማ	0	0	0	•	88
	2000	97007	9000			•	2000		77
1000	0,000	5 0,0	1,440	3	3	ľ	2,000	3	514.61

Unaccounted for crude oil is a balancing item.
 Total equals refinery fuel use and loss.
 Less than 500 barrels per day.
 Estimated.
 Note: Total may not equal sum of components due to independent rounding.
 Sources and estimation procedures: See Explanatory Notes on Data Collection and Estimation.

'able 6. PAD District ι, suppry and Disposition of Crude Oil and Petroleum Products, July 1982 (Thousands of Barrels)

				Supply					,		
Commodity	Field Produc- tion	Refinery Produc- tion	Imports	Stock With- drawal (+) or Addi- tion (-)	Unac- counted For Grude	Chude Used Directly and Losses2	Net Receipts	Refinery	Exports	Products Supplied	Ending Stocks
ude Oil (including lease condensate)	E 2,581	0	32,234	1,507	1,103	•	2,585	40.010	<b>3</b>		47.695
tural Gas Plant Liquids and LRGs	90	*		ļ					C	•	C70'//
iquefied Petroleum Gases	480	240	9 5	<b>3</b>	o (	0	2,588	192	35	4,484	4.411
thane	399	200	3 Ā C	5	0 0	0 0	2,588	173		3,844	4,389
ther Products3	129	0	8	61	0	<b>&gt;</b>	0 0	0 0	9 9	380	0 9
Other Literates		,					)	2	3	7	7
Other Hydrocarbons and Alcohol	706	0 (	2,534	-1,191	0	0	279	2,865	0	-1.037	27 832
Unfinished Oils	8	0 0	0 0	4	0	0	0	202	0	0	3 1
Motor Gasoline Blending Components	o c	<b>.</b>	28.5	-1,980	۵ (	0	279	2,002	0	-1,870	17.851
Aviation Gasoline Blending Components	· c	0 0	5 9	3 9	<b>&gt;</b> (	Q ·	0	861	0	83	4.948
	•	•	>	0	5	0	0	0	0	0	0
Finished Petroleum Products	8	43.715	22.061	3000	c	•	1				
Finished Motor Gasoline	8	20.308	4 068	200	<b>5</b>	<b>-</b>	75,215	0	732	132,408	166,962
Fmished Leaded Motor Gasoline	38	8 536	2,416	2,033	<b>&gt;</b> (	0	45,277	0	<u>\$</u>	71,562	58,215
Finished Unleaded Motor Gasoline	5	14 773	7410	600	0	0	19,855	0	<u>2</u>	31,335	28.867
Gasohol	·c	3 (	20.	188,	0	٥	25,422	0	0	40,228	29.341
Finished Aviation Gasoline	> <	) <del>,</del>	> (	ī	0	O	0	0	0	7	7
Naphtha-Type Jet Fuel	•	- 6	(e)	-	0	0	185	0	0	197	426
Kerosene-Tvoe Jet Fixel	0	4 000	0 8 8	192	0	0	542	0	0	1.578	23 2
Kerosene	0	4,4 Z 6	0 9	930	0	٥	6,457	0	0	8.799	7 982
Distillate Fuel Oil	0 0	3 5	54.	128	0	0	257	٥	-	306	3.845
Residual Fuel Oil	o c	0.00	3,417	-13,170	0	0	17,657	0	105	16.810	57,395
Naphtha and Other Oils for Petrochem.	•	0,900	13,734	6/0,1	0	0	3,328	0	-	22,080	27,078
Feedstock	0	656	100	+	c	•	•	,			
Special Naphthas	0	24	100	÷ &	- (	<b>&gt;</b> (	011-	0	99	1,514	248
Lubricants	· c	550	5	3 8	<b>&gt;</b> (	0	318	0	4	220	1.6
Waxes	• •	3 8	3,	ខុ	0	0	413	0	125	1,047	3,542
Petroleum Coke		4 00 00	9 (	<b>20</b> !	0	0	0	0	4	102	156
Asohalt	> 0		<b>5</b>	-142	0	0	0	0	270	923	930
Road Oil	<b>•</b>	ر د. ایر	SE GE	259	0	0	<u>\$</u>	0	ო	4.252	5.082
Still Gas		2	9	0	٥	0	0	0	0	0	O
Miscellaneous Products	> 0	<b>2</b> , 5	ο ·	0	٥	0	0	0	0	1.941	· c
1144444444annayayayayayayayayayayayayayaya	>	<del>2</del> 8	-	-116	0	0	247	0	16	778	622
Total	3.829	45.058	58 223	9	4 402	c	-				
			and a	ļ	1, 195	>	/qq'ng	43,067	767	135,836	211,821

Unaccounted for crude oil is a balancing item.
 Total equals refinery fuel use and loss.
 Includes natural gasoline, isopentane, unfractionated stream, and plant condensate.
 Less than 500 barrels.
 Estimated.
 Note: Total may not equal sum of components due to independent rounding.
 Sources and estimation procedures. See Explanatory Notes on Data Collection and Estimation.

Table 7. PAD District II Supply and Disposition of Crude Oil and Petroleum Products, July 1982 (Thousands of Barrels)

				Supply					Disposition		
Commodity	Field Produc- tion	Refinery Produc- tion	Imports	Stock With- drawal (+) or Addi- tion (-)	Unac- counted For Crude Oil1	Crude Used Directly and Losses2	Net Receipts	Refinery	Exports	Products Supplied	Ending Stocks
Crude Oil (including lease condensate)	E 29,262	•	22,867	911	39,990	-23	1,840	93,898	949	0	74,128
Natural Gas Plant Liquids and LRGs	8,379	2,410	5,310	1,738	0	0	2,939	4,955	7	15,814	34,700
Liquefied Petroleum Gases	6,441 1601	2,391	3,589	691 263	00	00	1,756	2,799	<b>~</b>	12,062	29,758
Other Products <sup>3</sup>	337	90	0	685	00	00	1,183	2,156	00	3,7,5 3,0	3,255
Other Liquids	409	0	230	-545	0	0	927	2,235	0	-914	31.644
Other Hydrocarbons and Alcohol	409	0	0	7	0	0	0	416	0	0	105
Unfinished Oils	0	0 (	121	385	0	0	569	1,788	0	-1,013	22,178
Motor Gasoline Blending Components	0 (	0 (	408	-943	۰.	0	658	52	0	86	9,261
Aviation casoline biending components	0	D	0	o.	0	0	0	9	0	0	100
Finished Petroleum Products	4	102,442	999	-11,339	0	0	21,561	0	554	112,789	126.673
Finished Motor Gasoline	0	56,941	62	-5,071	0	0	14,248	0	(s)	66,179	53,343
Finished Leaded Motor Gasoline	0	28,771	29	-3,142	0	0	7,356	0	(B)	33,044	28,901
Finished Unleaded Motor Gasoline	0	28,143	8	-1,925	0	0	6,892	0	0	33,112	24,417
Catalog Annual Canter Canter	9	25	0 1	4 !	0	0	0	0	0	B	53
North Too let Col	0 6	181	0 (	-52	0	0	174	0	0	330	591
Kapitaty yes del fuel	<b>a</b> c	380	<b>a</b> (	6	۰ ۵	0	72	0	0	1,083	1,185
Kerosene	0	2,535 386	<b>-</b>	} <del>-</del>	> 0	<b>-</b>	738	0 0	00	4,756	7,740
Distillate Fuel Oil	-	22,072	100	-8,489	0	0	6,012	0	0	19,695	42.575
Residual Fuel Oil	0	3,399	303	-58	0	0	-710	0	0	2,934	5,712
Naphtha and Other Oils for Petro. Feed.	0	1,887	0	0	0	٥	o,	٥	29	1,834	328
Special Naphthas	0	473	127	<del>-</del>	0	0	149	0	-	737	603
LUDACADIS LALLON CONTRACTOR CONTR	0	824	49	84	0	0	23	0	55	1,199	2,118
Waxes	0	9	က	27	0	0	0	0	(S)	36	88
Petroleum Coke	0	3,355	0	-178	0	0	0	0	431	2,746	1,100
Asphan Caramanananananananananananananananananan	0	3,950	19	2,036	0	0	277	0	45	6,237	8,547
CAN Con	0 0	8 9	0 (	∓ '	0	0	0	0	0	37	46
Misselleness Deducto	> ;	4,162	<b>ə</b> (	0 (	0 (	۰ ۵	0 1	0	0	4,162	0
Miscellareous Products	4	205	2	97	0	0	83	0	-	823 238	195
Total	38,065	104,852	29,370	-9,235	39,990	-23	27,267	101,088	1,509	127,688	267,145

<sup>1</sup> Unaccounted for crude oil is a balancing item
2 Total equals refinery fuel use and loss.
3 includes natural gasoline, isopentane, unfractionated stream, and plant condensate.
3 Less than 500 barreis.
E Estmated.
Note: Total may not equal sum of components due to independent rounding.
Sources and estimation procedures: See Explanatory Notes on Data Collection and Estimation.

Table 8. PAD District III Supply and Disposition of Crude Oil and Petroleum Products, July 1982 (Thousands of Barreis)

				Supply							
		-		Stock					Disposition		
Commodity	Field Produc- fron	Refinery Produc- tion	Imports	With- drawal (+) or Addi-	Unac- counted For Crude	Crude Used Drectly	Net Recepts	Refinery Inputs	Exports	Products Supplied	Ending Stocks
Crude Oil (Including lease condensate)	1 2 2 2 2			(-) uon		Losses2					
Natival Cas Direct 1	5 130,516	•	68,202	-6,549	-29,378	7	12.336	175 DRG	•	]   	
Tant Liquids and LRG Toleum Gases	34,238	4,069	2,117	-1.989	c	•		Bonfr :	<b>-</b>	0	423,853
Ethane			802	-559	) C	<b>&gt;</b> c	-5,263	8,746	945	23,481	84.043
7		98	0 !	8	0	0	4.	3,741	945	17,858	69,223
Other Liquids			515,1	-1,519	0	0	-829	4,897	<u>0</u>	6,014	3,609
Other Hydrocarbons and Alcohol	591	0	2,025	-701	c	•				200	17,
Unfinished Oils	591	0	0	-7	9 0	<b>a</b> c	-1,396	11,471	0	-10,952	800.69
Motor Gasoline Blending Components	<b>&gt;</b> C	0	2,025	-205	0	0	738	8, 8	0	0	93
Aviation Gasoline Blending Components	c	> 0	0 (	469	0	0	1, 55 85.58	84.6	0 (	-7,406	49,980
	•	5	5	-50	0	0	3	160	<b>&gt;</b> (	-3,686	18,693
Chilstied Petroleum Products	346	100 969					)	3	0	140	242
First Motor Gasoline	3	04.240	5,248	-2,402	0	-	-101.377	c	2		
Filter Leaded Motor Gasoline	• =	040,04	23	8	0	0	-61847	• •	5 C	91,885	133,077
Gassler Unleaded Motor Gasoline	c	50.00	<u>e</u>	1,085	0	0	-28.247	o c	ກິດ	31,340	47,350
Cabola A Section of the Control of the Cabola Cabol	· c	25,050	<b>)</b> (	-1,685	0	0	-33,600	•	700	14,601	22,658
Moster T.	9 6	- 666	<b>5</b> (	0	0	0	0	<b>-</b>	<b>-</b>	16,738	24,692
Maphima I ype Jet Fuel	?	326	0 (	ဗို	0	0	-384	> <	0	<b>-</b> !	0
Kansaas Kansaas	0	5,035 10,755	0 (	440	0	0	-776	•	<b>-</b>	-17	774
Distillate End Oil	4	0200	<b>&gt;</b> c	4	0	0	-8,136	0	<b>-</b> c	1,839	2,945
Reddial East on	_	39.837	2 5	8	0	0	473	• •	<b>-</b>	41/3	10,864
Naohtha and Othor All Land	0	15,445	3.463	7,6,1-	0	₩	-23,932	0	, , ,	13.087	2,510
Special Nanhthae	0	9.719	2,699	6	0 (	0	-3,482	0	5.844	10.287	34,150 000,01
Lubneants	51	1,380	0	300	<b>ɔ</b> (	0	101	0	349	12.088	0000
Waxes	0	2,694	46.	202	<b>&gt;</b> (	0	467	0	8	669	3,120
Petroleum Coke	0	228	2	P F	> 0	0	-748	0	339	1 9	0,140
Asohal	0	4,927	2	3 -	<b>5</b> 6	٥,	0	0	8	8	467
Road Oil	0	3,478	0	375	<b>-</b>	0	0	0	1,743	333	746
Still Gas	0	0	• •	3	<b>&gt;</b> c	0 (	-921	0	-	2.931	3 473
Miscellaneous Products	0	8,725	0	<b>-</b>	) c	۰ د	0	0	0		5
***************************************	503	1,279	-	-222	<b>&gt;</b> c	٥.	0	0	0	8.725	N C
Total	465 600			į	>	0	-312	0	æ	922	2,202
	060,501	202,332	78,593	-11,641	-29,378	9	-95,700	105 200	007.07		
Unaccounted for crude oil is a balancing item.								coche	10,153	104,415	709,981

<sup>1</sup> Unaccounted for crude oil is a balancing item.
2 Total equals refinery fuel use and loss.
3 Includes natural gasoline, isopentane, unfractionated stream, and plant condensate.
(e) Less than 500 barrels
E Estimated.
Note: Total may not equal sum of components due to independent rounding
Sources and estimation procedures: See Explanatory Notes on Data Collection and Estimation.

Table 9. PAD District IV Supply and Disposition of Crude Oil and Petroleum Products, July 1982 (Thousands of Barreis)

	ļ !			Supply					Disposition		
Commodity	Field Produc- bon	Refinery Produc- tion	Imports	Stock With- drawal (+) or Addi- tion (-)	Unac- counted For Crude	Crude Used Directly and Losses2	Net Receipts	Refinery Inputs	Ëxports	Products Supplied	Ending Stocks
Crude Oil (including lease condensate)	E 18,465	0	1,415	1,257	7,287	φ	0	13,844	0	0	13,718
Natural Gas Plant Liquids and LRGs	2,078	74	401	49	0	0	-264	493	0	1,845	1,155
Liquefied Petroleum Gases	702	2	267	47	0	0	9	309	0	836	902
Ethane Other Products <sup>3</sup>	1,371	40	135	(s) 2	00	00	0 -324	0 <del>1</del> 8	00	1,000	(s) 253
Other Lianids	77	0	0	544	Q	0	Ф	139	0	476	4.479
Other Hydrocarbons and Alcohol	7	0	0	0	0	0	0	۲	0	0	0
Unfinished Oils		0	0	237	0	0	0	-203	0	440	2,919
Motor Gasoline Blending Components	0	0	0	307	0	0	0	271	0	36	1,560
Aviation Gasoline Blending Components	0	0	0	0	0	0	0	0	0	0	0
Finished Petroleum Products	12	14,538	-	450	0	9	248	0	~	15,253	12,337
Finished Motor Gasoline	0	7.742	0	391	0	٥	178	0	0	8,311	4.282
Finished Leaded Motor Gasoline	0	4.934	0	328	0	0	166	0	O	5,428	2,727
Finished Unleaded Motor Gasoline		2,808	0	8	0	Φ	12	0	0	2,883	1,553
Gasohol	0	0	0	o	0	0	0	0	0	0	2
Finished Aviation Gasoline		\$	0	-7	0	0	53	0	0	28	35
Naphtha-Type Jet Fuel		387	0	7	0	0	-102	۵	0	284	338
Kerosene-Type Jet Fuel		557	0 (	-116	0	0	585	0	0	1,026	739
Distilate End On		0000		n l	0 (	٥	0 0	0 0	0 (	10	41
Beadial File Oil		3,030	<u> </u>	79	<b>5</b> C	<b>&gt;</b> 4	9 c	<b>-</b>	<b>-</b>	3,083 33.6	995,5
Naphtha and Other Oils for Petro. Feed.		)   N	0	10	0	0	0	0	د	-	} 0
Special Naphthas	0	7	9	ማ	0	O	0	0	0	4	7
Lubneants	0	ස		ዋ	0	o	0	0	-	ଷ	\$
Waxes		9	0	ማ	0	0	0	0	0	ო	S
Petroleum Coke	0	273	0	Q	0	0	0	0	(S)	279	492
Asphalt		669	0	563	0	0	0	0	;	1,261	2,438
Road Oil		4	0	0	0	0	0	0	0	4	ო
Still Gas		553	0	0	0	0	0	0	0	553	0
Miscellaneous Products		24	0	(\$)	0	0	0	0	0	36	2
Total	20,626	14,612	1,817	2,300	-7,287	0	-16	14,476	7	17,574	31,689
***************************************											

Table 10. PAD District V Supply and Disposition of Crude Oil and Petroleum Products, July 1982 (Thousands of Barrels)

				Supply					Disposition		
Commodity	Field Produc- tion	Refinery Produc- tion	Imports	Stock With- drawal (+) or Addi- tion (-)	Unac- counted For Crude	Crude Used Directly and Losses2	Net Recepts	Refinery Inputs	Exports	Products Supplied	Ending Stocks
Crude Oil (including lease condensate)	€ 87,293	0	698'9	-1,942	-4,394	-1,894	-16,761	63,015	6,156	o	82,396
Natural Gas Plant Liquids and LRGs	1,046	1,400	351	-134	0	0	0	1,005	166	1,492	1,633
Liquefied Petroleum Gases Ettane	80	1,388	351	-121	00	00	00	111	166	1,371	1,530
Other Products3	416	io	00	-16	0	00	00	294	00	106	102
Other Liquids	522	0	22	494	0	0	190	2,456	0	-1,029	33,581
Other Hydrocarbons and Alcohol	225	0	0	₩	0	0	0	523	0	0	10
Unfinished Oils	0	0	175	1,286	0	0	190	2,037	0	-386	24,862
Aviotion Gooding Planding Components	0 0	0 0	47	84 F	0	0 (	0 (	-159	0	-642	8,621
Availon dasonne bienung Components	•	<b>&gt;</b>	0	çç	0	0	0	22	0	0	88
Finished Petroleum Products	6	69,016	3,193	-2,262	0	1,856	4,353	0	4.232	71.924	55,662
Finished Motor Gasoline	0	31,054	2,075	-1,866	0	0	2,144	0	41	33,366	19,755
Finished Leaded Motor Gasoline	0	14,991	1,431	-1,698	0	0	870	0	4	15,552	9,992
Finished Unleaded Motor Gasoline	0	15,990	645	-171	0	o	1,274	0	0	17,738	9,758
Casonol Casonol Control of the contr	0	E	0	n	0	0	0	0	0	92	S.
Finished Avadon Gasoline	0	282	0	හි	0	0	0	0	0	342	558
Napma-1ype Jet Fuel	0 (	1,912	0	-110	0	0	264	0	0	2,066	1,418
Kensene i ype Jei ruei	0	6,634	225	-198	0 (	0 (	336	0	8 3	6,965	6,090
Distillate Fuel Oil	0	9.937	310	13	c	354	25.0	0 0	380	11 035	10 626
Residual Fuel Oil	0	8,812	343	-138	0	1,502	864	0	1,562	9,820	9,289
Naphtha and Other Oils for Petro. Feed.	0	456	æ	-14	0	0	٥	0	124	351	382
special Naphthas	0	139	174	တ	0	0	0	0	ო	319	339
Libricants	0	459	(8)	ဗ္ဂ	0	o	4	0	5	420	1,462
Waxes	0	25	4	12	0	0	0	0	ო	8	47
Petroleum Coke	0	3,471	0	-222	0	o	0	0	2,032	1,217	2,584
Asphalt	0	1,785	0	283	0	0	0	0	-	2,067	2,528
Hoad Oil	Ó	20	0	လ ကို	0	0	0	0	0	Ŧ	33
Still Gas	0	3,578	0	0	Ф	0	0	0	0	3,578	0
Miscellaneous Products	0	283	0	-143	0	0	0	0	ო	147	362
Total	88,861	70,416	10,635	-3,844	-4,394	-38	-12,218	66,476	10,555	72.388	173,272

1 Unaccounted for crude oil is a balancing item.
2 Total equals refinery fuel use and loss.
3 Includes natural gasoline, isopentane, unfractionated stream, and plant condensate.
5 Less than 500 barnels.
E Estimated.
Note: Total may not equal sum of components due to independent rounding.
Sources and estimation procedures: See Explanatory Notes on Data Collection and Estimation.

Table 11. Production of Crude Oil (including Lease Condensate) by PAD District and State, for the Most Current Month, May 1982 (Thousands of Barrels)

	Production	- 1	PAD District IV
PAD District and State	Total	Daily	Colorado
PAD District I			Utah
Florida	2,204	7	Wyoming
New York	E 67	2	Total
Pennsylvania	€ 207	7	
Virginia	0	0	PAD District V
West Virginia	E 198	9	Alaska
Total	€ 2,676	98	South Alaska
			North Slope
PAD District II			Total Alaska
llinois	2,221	72	Arizona
Indiana	E 580	6	California
Kansas	5,935	191	Central Coastal
Kentucky	E 547	48	East Central
Michigan	2,516	₩	North
Missouri	E 7	(s)	South
Nebraska	594	19	Negational
North Dakota	3,934	127	Total
Oho	E 1,154	37	
Oklahoma	14,153	45/	United States Total
South Dakota	66	თ (	
Total	108	4 002	1 Includes offshore
i OVBI superpretativementementementementementementementemen	0101	,30°.	Sources: See Expli
PAD District III			E Estimated.
Alabama www.mmmmmmmmmmmmmmmmmmmmmmmmmmmmmmmm	1,768	23	
Arkansas	E 1,576	5	
Louisiana			
Gulf Coast	35,879	1,157	
Rest Of State	2,973	96	
Total Louisiana	38,852	1,253	
Mississippi	2,952	95	
New Mexico	3	ŗ	
NOTUNESCETT	4 6	= !	
Southeastern	5,472	// 1	
Texas	008'0	3	
TRRC District 01	2.264	73	
TRRC District 02	3,463	112	
TRRC District 03	11,653	376	
TRRC District 04	2,438	79	
TRRC District 05	670	ส	
TRRC District 06, excluding East Texas	3,567	115	
TRRC District 078	2,743	88	
TRRC District 07C	2,817	9	
TRRC District 08	19,606	632	
TRRC District 08A	20,349	929	
TRRC District 09	3,153	102	
TRRC District 10	1,798	8	
East Texas	4,504	145	
Total Texas	79,025	2,549	
Total	130,159	4,199	

<sup>-</sup>Continued

	Production	ction
PAD District and State	Total	Darly Average
PAD District IV		
Colorado	2,811	91
		28
***************************************	ш	8
Wyoming	E 11,089	358
		595
PAD District V		
Alaska		
South Alaska	2,302	74
North Slope	50,621	1,633
Total Alaska	52,923	1,707
		•
California		
Central Coastal	6,395	506
East Central	20,578	<b>8</b>
April	11	-
	6,947	224
Total California	33,937	1,095
Nevaria	47	2
Total	86,935	2,804
Liter Total	190 020 H	0

re production. barrels. planatory Notes on Data Collection and Estimation

Table 12. Offshore Production of Crude Oil (including Lease Condensate) By State, for the Most Current Month, I May 1982 (Thousands of Barrels)

	Offshore	Offshore Production
State	Total	Daily Average
Alaska²	2,038	88
California Federal	2,298	74
State	3,418	. 110
Celifornia, Total	5,716	\$
Louisiania Federal	22.693	732
State	2,092	67
Louisiana, Total	24,785	800
l exas Federal	1,518	49
State	127	4
Texas, Total	1,645	83
United States Total	34,184	1,103

Table 13. Production of Lease Condensate by State, for the Most Current Month, 1 May 1982 (Thousands of Barrels)

***************************************	Lease Condens Production	Lease Condensate Production
orace	Total	Daily Average
Alabama	711	ន
California	12	(s)
Lousiana	5,771	186
Mississippi	161	ß
New Mexico	371	12
Oklahoma	961	હ
Texas	3,678	119
Total	11,665	376

1 These production data are included in Table 11. Small amounts of lease condensate are known to be produced in states other than those listed, however, statistics on this production are not available.

(s) Less than 500 barrels.

Note: Total may not equal sum of components due to independent rounding. Sources: See Explanatory Notes on Data Collection and Estimation.

These production data are included in Table 11.
 All offshore production within State boundaries.
 Note: Total may not equal sum of components due to independent rounding.
 Sources: See Explanatory Notes on Data Collection and Estimation.

Table 14. Natural Gas Processing Plant Production of Petroleum Products by PAD District, July 1982 (Thousands of Barrels)

	PA	PAD District	7		PA	PAD District					PAD District	bict ///			DAD	PAD	
Commodity	to a	Appala-		Appala-	-	Minn,	Okta,		Tower	Texas		3			Dist IV	Dist. V	United
	Coast	chian #1	Total	chian #2	II. Ky.	Wisc., Daks.	Kans, Mo.	Total	Inland	Coast	Gulf Goast	Ar F	Mexico	Total	Rocky	West	States
		į															
Natural Gas Plant Liquids	8	371	1,008	٥	2,080		5,912	8,379	18,329	2,806	8,909	813	3,382		2,078	1,046	46.749
sopentane	0	0	Ο,	0	0		204	8	406	118	117	0	0		2	0	848
Natural Gasoline	92	37	128	0	69		1,178	1.340	2212	-1.610	1.466	13	592		374	457	4 769
Unfractionated Stream	0	<b>~</b>	Ψ-	0	1,014		-2,362	-1,285	7,504	8.964	540	88	2,306		982	9	1,233
Plant Condensate	0	0	0	٥	22	0	27	79	251	675	93	듁	-	885	0,0	0	974
Liquefied Petroleum Gases and Ethane	545	334	879	0	946		6,866	8,043	7,956	12,587	6,746	573	908		707	630	38.926
Emane	2	179	399	0	430		1,171	1,601	1,244	2,439	2,156	33	74		ц	0	7,951
Propane	88	5	8	0	395		2,590	3,127	2,849	3,944	2,207	148	349		454	352	13,724
Butane	114	8	146	0	92		1,097	1,251	1,443	2,314	854	215	150		239	227	6.839
Butane-Propare Mixtures	0	0	0	0	0		0	0	92	8	_	11	0		es	88	134
Ethane-Propane Mixtures	0	0	0	0	0		1,581	1,581	1,753	2,718	722	10	166		0	0	6.950
Sobutane	23	17	<del>4</del>	0	45		425	483	903	1,146	807	155	98		ဖ	83	3,328
Finished Motor Gasoline	स	0	8	0	0		0	٥	0	0	0	0	0		0	0	용
Finished Leaded Motor Gasoline	8	0	8	0	0		0	0	0	٥	0	0	0		0	0	8
Finished Unleaded Motor Gasoline	0	0	0	0	0		0	0	0	٥	0	0	٥		0	0	0
Gasonol	0	0	0	0	0		0	0	0	0	0	0	0		0	0	0
Finished Aviation Gasoline	0	0	0	0	0		0	0	8	0	0	0	0	8	0	0	8
Naprina-1ype Jet Fuel	0	ο ·	0	0	٥		٥	0	٥	0	0	0	0		0	0	0
Nerosene-Type Jet Fuel	0	0	0	0	0		0	0	0	0	0	0	0		0	0	0
	۰ د	9	0	0	0		0	0	Ψ	0	0	(s)	~		0	0	4
Canada No-Lu-	<b>5</b> (	0	0	0	0		-	•	-	0	0	0	0		0	0	8
Misselfenson: Deducte	<b>O</b> (	0 (	0	0	0		0	0	5	0	0	0	0		0	0	5
miscerial regus regulation	9	>	0	0	N		12	4	197	ო	ო	ო	ო		12	0	232
Total Production	671	37.1	1,042	0	2,082	387	5,924	8,394	18,659	2,809	8,911	817	3,387	34,583	2,090	1,046	47,156

1 Production represents quantity of natural gas processing plant output less input to fractionating facilities. (s) Less than 500 barrels.

Note: Total may not equal sum of components due to independent rounding.

Source: See Explanatory Notes on Data Collection and Estimation.

ole 15. Refinery Input of Crude Oli and Petroleum Products by PAD District, July 1982 (Thousands of Barrels, Except Where Noted)

		United		385,853		6,242	1,308	7,841	108	183	885	101	0	2,991		1,730	66	77.00	7	n n 1	420,410	10 806	17,146	797		19.
	PAD	Dist. V West	Coast	63,015		462	0	711	0 (	2 6	89.5	0	0	378		517	2.037	1 2	3 1	8	66,476	244	3,148	6/.7		1 00
	PAD	Dist. IV Rocky	Mt	13,844	ě	<u> </u>	8	309	o ţ	202	185	ဖ	0	ô		7	-203	27.	i	9	14,476	453	88	4		81
		Total		175,085 13,844	0000	2,022	1,075	3,849	5 5	2.356	284	91	0 5	893		\$	8,488	2.559			505,681	5 844	7,907	6.67		.86
		New	7.5	7,75	205	30	0	£ 6	o c	0	0	0	<b>0</b> ;	ō		0 (	၁ ထ္ထ	-101	<b>C</b>	,	Z,3C4	9	128	4		24
	Strict	No La.	707	1	400	0	280	42,0	0	, ₹	0	0 (	0 6	3	•	<b>&gt;</b> 6	115	17	c	130	3	190	284	3		1.41
	PAD District		C03ST 64 162		251	0	0	1,869	125	1,425	146	<u>n</u>	2 5	2	ć	243	1,288	2,572	o	70 391		2,172	2,756 78.8	}		88
		Gulf Sass	87.820		2,223	0	740	8 8	٥	821	25	7	288	}	ć	3	6,417	796	-24	595.598		2,881	70.0			98.
		Texas	14,889		1,043	0	55	676	0	88	တ္ထ ဇ	<b>&gt;</b> C	354		ц	o c	600	-725	-136	16.260		507	628 80.7			4. 6
		Total	93,898		2,016	0	2 700	o i	46	1,027		<i>t</i> C	1,509		416		1,788	52	9	101,088 16.260		3,130	3,688 84.9			87
=======================================	١	Kans,	25,012		986	0 ;	77.	0	٥	178	è c	0 0	526		c	0	457	-462	ß	26,798		817	965 84.6			<u>.</u> 2
PAD District II	Minn	Wisc. Daks	8,521		389	0 0	272	0	0	124	<u>†</u> C	0	34		0	0	-28	-17	0	9,107		293	89.3 89.3		i	1.54
		≡ ng.	58,621		83		1.639		46	888	4	0	869		416	0	1,355	527	-	63,311		1,960	83.0		i	19. 93
	Appala-	chian #2	1,744		0	0 0	117	0	0 5	÷ C	0	0	80		0	0	34	-23	0	1,872		50	92.6		à	35.30
1		Total	40,010		19	<b>&gt;</b> c	173	0	ې د	5 0	0	0	163		142	8	2,002	661	0	43,067		1,354	75.4		Ç	33.09
PAD Distnet	Appala-	chian #1	2,600		00	o c	e co	00	<b>&gt;</b> c	0	0	0	ო		£	9	O)	66	0	2,772		187	53.8		8	40.82
ď	in the state of th	Coast	37,410		<u>6</u> c	00	170	00	þ	20	0	0	160		141	0	1,993	295	0	40,295		1,267	77.6		5	
	Commodity		Crude Oil (including lease condensate) 37,410	Natural Gas Plant Liquids	8	Plant Condensate	Ethane	Propane	Normal Butane	Other Butanes	Butane-Propane Mixtures	Ediane-Propane Mixtures	A DOLONE	Other Liquids	Other Hydrocarbons	Definished Oil God	Motor Gasoline Blending	Components (net)	Components (net)	Total Input to Refinences	Groce form (John	Operable Capacity (daily average)	Operating Ratio (percent)1	Crude Oil Qualities	(percent)	API Gravity, Weighted Average

1 Represents gross input divided by operable capacity. Note: Total may not equal sum of components due to independent rounding. Source: See Explanatory Notes on Data Coffection and Estimation. Table 16. Retinery Production of Petroleum Products by PAD District, July 1962 (Thousands of Barrels)

	PAL	PAD District			PA	PAD Distnet	=				PAD Dis	District III			PAD	PAD	
Commodity	East /	Appala- chian #1	Total	Appala- chian #2	Ind.		Okta. Kans., Mo	Total	Texas	Texas Gulf Coast	Coast 7	ر أو	New	Total	Dist. IV Rocky Mt	Dist V West Coast	United
Liniefied Detrolerm Gases and Ethane	1329	4	1343	æ	1.665	188	524	2.410	224	2.440	1,250	75	8	4,069	74	1,400	9,296
For Detrochamical Feedstock like	346	: c	348	3 0	186	-	45	33	12	1 293	216	9	0	1.527	۴	219	2,316
For Other Uses	88	7	997	83	1,479	187	479	2,178	212	1,147	1,034	69	80	2,542	82	1,181	6,980
Ethane	0	0	0	0	13	o	0	13	0	78	œ	0	0	88	4	12	121
For Petrochemical Feedstock Use	0	0	0	0	0	0	0	0	0	78	∞	0	0	8	0	0	98
For Other Uses	0	0	0	0	13	0	0	6	0	0	0	0	0	0	4	12	32
Propane	1,058	4	1,072	ဗ္ဗ	1,629	185	602	2,449	503	2,215	1,242	9	23	3,779	<u>6</u>	903	8,364
For Petrochemical Feedstock Use	308	0	308	0	186	0	\$	3	0	876	2	0 (	<b>P</b> {	88	- 6	1/6	7,697
For Other Uses	750	14	76	8	1,443	185	557	2,218	509	1,339	1,137	8 9	8 8	2,798	<u>5</u> 8	/5/	6,66/
Butane	247	0	247	0	17	(n)	-78	20 ·		121	2 8	<u> </u>	77	8	<b>β</b> 9	424	5 2
For Petrochemical Feedstock Use	88	0	ဗ္ဗ	0	0 !	,	9	, <u>†</u>	<b>-</b>	9	£ ;	וסי	<b>&gt;</b> ;	254	<b>&gt;</b>	54.5	ž s
For Other Uses	88	0	203	0	17	7	-78	ę,	m ·	-240	<u></u>	_ `	ב' ל	-774	χ Υ	<u> </u>	<del>2</del> 1
Butane-Propane Mixtures Butane-Propane	24	0	24	0	0	0	0 1	0 •	0 (	84	02-	~ •	φ •	41-	4 4	ۍ °	ì ;
For Petrochemical Feedstock Use	0	0	0	0	0	0	0	0	0 (	0 (	20 5	o (	o (	92	<b>&gt;</b> ;	<u>-</u> د	20 5
For Other Uses	24	0	24	0	0	0	0	0	0	8	æ	7	9	P P	4	9	සි
Isobutane for Petro. Feed. Use	0	0	٥	Θ	0	0	0	0	2	72	0	0	0	-10	op P		-19
Finished Motor Gasoline	19,321	987	20,308	1,023	35,698	5,103	15,117	56,941	8,176	47,766	35,050	2,007	1,341	94,340	7,742		210,385
Finished Leaded Motor Gasoline	8,044	492	8,536	517	16,396	2,955	8,903	28,771	3,917	19,021	17,280	1,330	768	42,316	4,934	14,991	99,548
Finished Unleaded Motor Gasoline	11,277	495	11,772	200	19,279	2,148	6,210	28,143	4,258	28,745	17,770	229	573	52,023	2,808		110,736
Gasohol	0	0	0	0	83	0	4 ;	27		0 !	۱ -	0 1	۰ ۵	- :	٠:	13	5
Finished Aviation Gasoline	= ;	0	F	0	121	0 ;	8 i	181	ი <u>(</u>	247	72	0	0 ;	355	<b>4</b> €	582	836
Naphtha-type Jet Fuel	583	111	594	ର :	418	8 (	4/6	88 6	4.5	1,335	424	232	35	3,055	200	218,0	20,928
Kerosene-1ype Jet Fuel	204,	4 5	7.5	\$ 0	7,00 4,00 6,00 6,00 6,00 7,00 7,00 7,00 7,00 7	2 5	826	1207	5	9,470	500,0	4 4	÷ 4	00,70	200	9,00,0	25,943
	2	7	3	7	705	7	3	000	3	9 1	200,	7 7	የ ጀ	2,073	0 6	0.0	2,002
Disblate Fuel Oil	8,310	82	9,010	469	12,469	1,943	7,191	22,072	3,608	21,871	11,836	1,60	921	39,837	3,898	) 60 6 60 6 60 6	47.5
Distilate Fuel Oil Less No 4	8,310	969	9,006	469	12,449	1,943	7,191	22,052	3,596	21,689	12,191	1,529	724	39,729	3,866	9,833	84. 85.
No. 4 Fuel Oil	0 100	4 6	4 000	۱ -	25	0 5	÷ ;	2 2	12	182	2	2 5	200	5 5	3 8	2 5	3 8
Nachtha / 400 Dea Ear Detra Egod The	3,726	213	989.5	4 0	2,249	462	614	3,399	669	2,004	35	) (	3	12,445	ا ا	2,812	4 370
Other Ode 100 Deg. For February Cool 100	1 50	•	֓֞֝֝֓֞֝֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֡֓֓֓֓֓֓֓֡֓֓֡֓֡֓֡֓֡	•	000	> 0	ñ T	0 0	5 6	20,00	3 0	- 14	) c	מילה מילה מילה	4 C	107	ה ליני היים היים
Canal Northbas	2 "	- α	5.6	<b>&gt;</b> C	020,	<b>&gt;</b> c	- 5	 	- S	007,5	ų g	t 5	> <	280	<b>7</b> C	2 6	000
Librarante	. 4g	384	7 7	· C	4 6	o c	3 5	824	2 5	200	. C.	215	o c	2694	, g	2 4	4.556
Bright Stock	3 07	130	139	0	200	0	. ~	22	90	9	8	0	0	183	9 (7)	8	377
Neutral	88	215	273	0	397	0	240	637	0	673	493	85	0	1,248	88	299	2,485
Other Grades	8	ස	138	0	96	0	8	165	19	1,035	92	133	0	1,263	7	130	1,694
Wax	13	82	95	0	-15	0	52	5	~	141	46	34	0	228	ဖ	25	391
Microcrystalline	0 1	27	27	0 (	0 9	0 (	17	17	7	<u>0</u>	0 9	ğ, (	0 (	8 ;	0 (	0 (	\$ 5
Crystalline—Fully relined	n	<u>y</u>	2 5	<b>&gt;</b>	9 7	> 0	4 4	<b>1</b>	> <	8 8	ţ c	> 0	> <	2 2	0 <	ָרָ קָרָ	<u> </u>
Crystaline—Curet	0 0	2°	ָה ה ה ז	9 6	- 6	) i	4 0	ה ה ה	o u	3 5	2 60	- K	9 5	2 6	2 6	2 474	13 26 4
retroleum Coke	25	V		3 0	2,022	9 G	200	0,430 4 A A	ა ი ნ	לי. לילי מילי	500,	9 5	2 0	776,4	120	0,47	7,500
Marketable	3 8	> r	7 5	9 6	 	136	9 6	00,1	2 0	7.00	707	<u> </u>	> =	2 487	144	ς, α α α α	7,0,7 0,86,7
Achtel	3 115	4.0	3 157	3 1.	2 488	. F. E.	3 6	3 9 50	2 5	689	1 278	3 6	2 7	3.478	8	1 785	13,069
Boad Oil		ļ	0	2	5		2	92	0	0	o i	0	0	0	4	2	5
Still Gas	1.816	125	1.941	78	2.669	274	1.141	4.162	436	5.212	2.820	201	92	8,725	553	3,578	18,959
For Petrochemical Feedstock Use	42	0	42	0	-	o i	0	-	ις.	308	113	0	0	426	82	22	545
For Other Isse	1774	125	1 899	78	2,668	274	1.141	4.161	431	4.904	2,707	201	28	8.299	528	3.527	18.414
Miscellaneous Products	617	1	96	9	127	ដ	53	202	106	795	332	46	0	1,279	24	293	2,462
	42.352	2706	45.058	433	65 731	9 256	27 932	104 852	16.557	103 887	72.745	6.179	2 964	202 332	14.612	70.416	437.270
		1									. ;			. 1			
Processing Gain(-) or Loss(+)1	-2,057	8	-1,991	φ	-2,420	-149	-1,134	-3,764	-297	4,289	-2,354	7	4	-7,029	-136	-3,940	-16,860
1 December to a physical different property of the physical physic	- incurt an	t output															

<sup>1</sup> Represents the arithmetic difference between input and output.
Notes: Total may not equal sum of components due to independent rounding.
See Explanatory Notes on negative product yield.
Source: See Explanatory Notes on Data Collection and Estimation.

Table 17. Percent Refinery Yield of Petroleum Products by PAD District, July 1982

	A	PAD District	-														
Commodity	100	Appala-		Annala	A.	PAD District	=				PAD	PAD Dietoct (III					
		chian	Fotal	chian	₹	Wisc.,	Kans.		Texas	Texas	<u> </u>	No.	Mon		PAD Dist ⊽	PAD Start	fruited
Finished Motor Gasoline2		*		2#		Daks	Mo		Inland				_=	Total	Rocky	West	States
Finished Aviation Gasoline3	46.8	31.6	45.8		54.0	52.7	542	52.0	0.07	ţ					) M	Coast	
Liquefied Refinery Gases & Ethane	(e) €	<b>그</b> 4	@ {		Ŋ	0	0	, c	ο φ σ	ექ	460	265		449		45.6	47.5
Kerosepe-Type Jet Fuel	1.5	. 4 ენ	2 t		7 0 1	22	2	2,5	 4		r, 6	0 6		ω (	m	e e	o ev
KeroseneKerosene	3.6	oj o	9		4.7	200	ر ون د	- c	8,4	4 (	9	4.1		7 T		2,0	23
Distillate Fuel Oil	21.1	20 KG	<del>-</del> -		9	4	7	9 4	4 0 4	9. F	100	α,		59		10.2	5.7
Namhtha / 400 Par r S	9.5	d d	4 6		20.8	23.0	78 5	33	233	23.2	18.0	- u		- 1		8	, ~
Other Oils > 400 Deg. F. Petro. Feed. Use	<u>.</u>	0	<u> </u>		, ci	ئ در د	24	3,6	4,0	7.4	10,9	8.9		217		553	212
Special Naphthas	4 (8)	(S)	۷.		2.8	0	<sup>†</sup> (s)	ήœ	23 1 9	6. 6 4. 4	4 4	(s)		1.9		ნ 0 4	0
Luoricants	£ 4.	14.7	- c		rů c	0	œρ	ί	<u>,</u> 00	, <del>-</del>	O.4.	0 7		3.4		m	- 2
Petroleum Coke	®	3.1	ij		J. 3	00	Q +	თ ჴ	-:	0	10	3.00		œψ		ώι	ro.
Asphalt	20 V	۳, ۵	1 in		3.4	4,1	38-	3.5	® ç	٠. ٥	٠. (	æ,				ر ام تر	
Hoad Oil	i 0	90	<u>ر</u> د		4. g	97	2.6	4.1	, w	2.0	9 0	5 5 7		2.7		53	. w
Still Gas for Other Likes	7.	0	· -,		<u> </u>	0 0	® <sup>c</sup>	© (	0	0	30	, O,		e. c		27	89
Miscellaneous Products	4 <del>-</del> մ ծ	4 to 7	4,5 6,5	40	4	32	5.	(§) (§)	© 8	თ ი თ	4 5	0 0	0	o 01	2 00	<u>.</u>	(s)
Processing Gam(*) or Loss(+) M	•	:	<b>D</b>		N	ო	κį	νį	7	8	in i	ე ე		4 & v		10. 4 r	4,6
	5.2		4.7	-34	4.0	1.8	4	c	,					,		ŋ	ထ
1 Based on crude oil input and net reruns of unfinished oils	nfinished	Silo.					2	5.5	<u>6</u> ,	9	98	6.1	-1.4	-3.8	-10	φ	5
hydrocarbons and alcohol	that plus		output of m	otor gas	oline ble	ndino o	שטטטשני	motor gasoline blending commonents									1
3 Based on finished aviation gasoline output plus net output of	us net ou	tput of a	viation o	Soline h	o parpus	aviation gasoline blending comments			io Indu	natural	gas plan	gas plant liquids, other	other				
TOTAL CONTRACT CONTRACT CONTRACTOR AND	1 1 1 1		2	,	מַבְּיִבְּיִבְיִנְ	֓֞֓֓֓֓֓֓֓֟֓֓֓֟֟֓֓֓֟֓֓֟֓֓֟֟ ֓֓֓֓֓֓֓֓֓֓֓֞֓֓֓֓֞֩֞֓֓֓֓֞֓֓֓֓	U										

hydrocarbons and alcohol

3 Based on finished avaiton gasoline output plus net output of avaiton gasoline blending components.

4 Represents the arithmetic difference between linput and Production

(s) Less than 0.05 percent.

Note: Total may not equal sum of components due to independent rounding.

See Explanatory Notes on negative product yields

Source See Explanatory Notes on Data Collection and Estimation.

Table 18. Refinery Receipts of Crude OII by PAD District, July 1982 (Thousands of Barrels)

			-		2	States O Con	2	-			PAD District II	stnct III			PAD	PAU.	
Method	PAI East	2)	Total	40 -	ind.	Minn, Wisc.	Okla. Kans.,	Total	Texas	Gulf	d ∰ 6	7	New	Total	Pocky Mt	Dist. V West Coast	United
		#			iii , ry.	Daks	Wo			Codesi	COGS)		-				
Pipeline Domestic	00	1,845	1,845 0	1,333	37,789 18,193	4,006	23,124 801	66,252 23,706	12,937 1,014	47,904 14,089	29,775 3,524	3,578 716	3,578 · 2,143 716 0	96,337 19,343	11,644 1,294	27,662 737	203,740 45,080
Tanker Domestic	4,601	00	4,601 25,910	00	00	00	00	00	o <b>o</b>	4,898 15,686	4,842 22,320	00	00	9,740 38,006	00	29,756 6,284	44,097 70,200
Barge DomesticForeign	5,576	80	29 5,576	。。	1,030	00	00	1,030	60	4,856 142	4,987 585	77 374	00	9,939	00	263	11,261 7,830
Tank Cars Domestic Foreign	180	264	345	00	00	00	00	00	00	00	00	0,0	00	0 0	00	00	365
Trucks Domestic Foreign		326	326	111	434	15	929	1,489	825 193	216	436	958	466 0	2,901	966	1,584	7,266 194
Total Domestic Foreign	4,682 31,486	2,464	7,146	1,444	39,253	3 4,021 5 4,332	24,053 801	68,771 24,859	13,781	57,874 29,917	40,040 26,429	4,633	2,609	118,937 58,643	12,610	59,265 7,021	266,729

Note: Total may not equal sum of components due to independent rounding. Source: See Explanatory Notes on Data Collection and Estimation.

Table 19. Fuels Consumed at Refineries by PAD District, July 1982 (Thousands of Barrels, Except Where Noted)

;	States	(3) 1,006 0 1,006 0 1,006 0 5,566 0 5,566 0 2,14 0 2,14 0 2,459 0 2,391
<b>A</b>	Dist. V West Coast	(s) 369 10 1257 49 880 3,367 7,082 7,082 0 570 630
PAD	Dist. IV Rocky Mt.	0 0 0 1,026 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
	Total	0 412 0 193 193 7,828 7,828 7,828 27,201 28,200 28,59 959 988
	New	(\$) 0 0 0 120 120 0 42 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
nct III	No. La.,	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
PAD Dist	Gulf Gast	0 354 0 0 2 62 0 706 2,600 (%) 5,943 0 429 988
	Texas Gulf Coast	0 50 0 113 0 1,500 4,620 40 17,556 40 0
	Texas	2 2 16 6 6 6 6 7 7 3 5 9 9 7 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9
	Total	0 169 0 6 408 1,286 3,880 84 5,927 117
_	Okla. Kans., Mo.	23 23 23 324 953 3,724 3,724
PAD District	;	0 50 0 20 0 5 1 5 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
DAG	Ind.	123 0 6 346 0 836 2,630 84 2,132 0 364
	ppala- chian #2	000000820880410
	Total	0 64 620 0 0 0 1,616 0 1,732 10 264 656
	Appala- chian #1	0 0 0 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2
1	East Appa Coast #1	0 42 43 572 572 0 1,490 0 234 649
	Commodity	Crude Oil (including lease condensate) Liquefied Petroleum Gases¹ Liquefied Petroleum Gases¹ Distulate Fuel Oil Residual Fuel Oil Still Gas Other Fuels 2 Other Fuels 3 Other Fuels 3 Other Fuels 3 Other Fuels 4 Other Fuels 5 Other Fuels 6 Other Fuels 7 Ot

1 Includes liquefied refinery gases.
2 Includes liquefied refinery gases.
2 Includes small quantities of other petroleum products (e.g., unfinished oils, kerosene, etc.) consumed at refineries.
3 Less than 500 barrels except where noted
Note: Total may not equal sum of components due to independent rounding.
Source: See Explanatory Notes on Data Collection and Estimation.

Table 20. Imports of Crude Oil and Petroleum Products by PAD District, July 1982 (Thousands of Barrels)

1		Petroleum	Petroleum Administration for Defense Distric	n for Defens	se Distric	I
Commodity	-	11	=	2	>	Total
Crude Oil (including lease condensate) 1.2	32,234	22,867	68,202	1,415	698'9	131,586
Natural Gas Liquids	405	5.310	2.117	401	354	8 584
Natural Gasoline and Isopentane	(s)	0	1.315	0	0	1316
Plant Condensate	92	0	0	135	c	700
Liquefied Petroleum Gases and Ethane	312	5.310	805	267	351	7 042
Ethane	0	1,721	0	0	0	1721
Propane	201	931	0	139	53	1324
Butane	111	770	96	128	298	1.401
Butane-Propane Mixtures	o	0	708	0	0	708
Ethane-Propane Mixtures	0	1,888	0	0	0	1,888
Other Liquids 1	2,534	230	2.025	0	201	5.310
Unfinished Oils 1	1,833	121	2,025	0	175	4.155
Motor Gasoline Blending Components	701	408	0	0	47	1,156
Finished Petroleum Products	23.061	S.E.A.	6.248	•	0 400	737 467
Finished Motor Gasoline	4,068	62	(8)	• 0	2,075	, C
Finished Leaded Motor Gaspline	2,415	59	( <u>(</u>	0	1.431	3 905
Finished Unleaded Motor Gasoline	1,653	64	0	0	645	2,300
Finished Avration Gasoline	(s)	0	0	0	0	(3)
Naphtha-Type Jet Fuel	250	0	0	0	o	250
Dodged Airest Fire	0	0	0	0	552	522
Office Argert rues		٥	0 (	0 (	0	٥
	2 4	<b>&gt;</b> ¢	<b>3</b> C	0	SSS	522
Distillate Fuel Oil	3417	5.5	o ç	) ()	5	245
Bonded ships bunkers	0	90	20	0	200	, 50,5 C
For military offshore use	0	0	0	٥	0	0
No. 2 fuel oil	3,417	100	9	(S)	300	3.828
No. 4 fuel oil	0	0	0	0	o	6
Residual Fuel Oil	13,734	303	3,463	0	343	17,843
Bonded ships bunkers	0	0	0	0	0	0
For military offshore use	0	0	0	0	0	0
Other	13,734	303	3,463	0	343	17,843
Naphtha < 400 Deg. for Petro. Feed. Use	991	0	2,699	0	æ	3,753
Other Oils > 400 Deg. for Petro. Feed. Use	0	0	0	0	0	0
Special Naphthas	19	127	o	(8)	174	330
Lubricants	233	49	46	<del>-</del>	9	330
Wax	ო	ო	ଷ	0	*	ଷ
Asphait	195	19	o	0	0	214
Miscellaneous Products		2	-	0	0	က
Total Impost				!		
LOLD HITCHOOL STATEMENT OF THE PROPERTY OF THE	58,233	29,370	(8,593	1,817	10,635	178,648

Crude oil and unfinished oils are reported by the PAD Distinct in which they are to be processed; all other products are reported by
the PAD District of entry.
 Includes grude oil imported for storage in the Strategic Petroleum Reserve.
 Includes grude oil imported for storage in the Strategic Petroleum Reserve.
 Includes grude oil imported for storage in the Strategic Petroleum Reserve.
 Includes grude oil imported for storage in the Strategic Petroleum Reserve.
 Includes grude oil imported for storage in the Strategic Petroleum Reserve.
 Includes grude oil of the product of the processed; all other products are reported by the processed; all other products are reported by the processed; all other processed; all other products are reported by the processed; all other processed; and processed; all other processed; a

Source	Onde 1 1	and Ethane	Unfin- ished Oits	Blending Compo- nents	Finished Motor Gasoline	Jet Fuel	Kero-	Distil. Oil	Pesid Pesid	Special Naphthas	Other Prod- ucts 2	Total Prod- ucts	Total Petro- leum	Total (Daily Average)
							All PAD	All PAD Districts						
Arab OPEC Aloeria	9.976	c	266	c	c	c	c	201	1 034	c	c	1 531	2 707	199
Kuwait	j	0	30	• •	0	0	0	10	533	0	0	533	533	4 1
Oatar	83	0	0	0	٥	0	0	٥	0	0	0	0		2
Saudi Arabia	18,309	0	195	Ö	0	0	0	0	835	0	834	1,664		644
United Arab Emirates	2,871	0	0	458	0	0	0	٥	٥	٥	481	939		123
Subtotal Arab OPEC	24,095	0	461	458	0	0	0	22	2,201	0	1,315	4,657	28,752	927
Other OPEC														
Ecuador	1.090	0	0	0	0	0	0	0	0	0	С	O	1.090	35
Gabon	. 689	0	0	0	0	0	0	0	0	0	0	0	689	8
Indonesia	9.685	0	0	0	185	0	0	87	178	0	0	450	10.135	327
Ran	2.153	0	C	0	0	0	0	0		C	• •	2	2 152	į
Nineria	28 224	¢	C	· c	· c		· C	• •	· c	(8)	· C	¥	28.024	9
Venezuela	4.654	0	595	0	253		· C	495	4811	C	· C	6.155	10,808	349
Subtotal Other OPEC	46.496	0	595	0	438	0	0	283	4 989	(8)	· C	6.605	53,100	1 713
Offier										:				
Angola	2.257	0	0	0	0	0		0	0	C	-	C	2257	73
Australia	0	94	278	C	C	9		C	ς.	· C		272	272	
Bahamas	o c	5	900	) C	•	0		0	2 0	ه د	> 0	7 000	3/5	2 6
Brazil	447	o c	9 0	0 0	734	<b>&gt;</b> C	<b>&gt;</b> C	<b>o</b> c	ţ ·	<b>)</b>	-	7 6	7 6 7	3 8
Bring		· c	•	•	5	0		9	o 6	0 6	•	4 5		9,
Canada	7.654	6.172	12.	410	802	<b>5</b> C		D 1	2.4	) i	ב ב ב	000	2000	- 101
France	}	,	3 0	2	3 -	> 0		9	, F	2	9 5	7/00	025,01	7 2
Ghana	•	o c	<b>o</b> c	•	o C	<b>&gt;</b> C		<b>o</b> 0	77	<b>o</b> c	200	3 6	252	- ţ
Malavsia	1 953	c	· C	c	C	o c			660	0	<b>-</b>	אר כי מאר	600	3 8
	20.50	202	0 0	) C	9	2 6		o i	7	<b>.</b>	<b>-</b>	200	200,0	3 8
Netherlands	3	24	<b>&gt;</b> C	c	250	9 6		7 6	7	- c	0 0	2 6	24,400	2 5
Netherlands Antilles	•	; c	1 116	c	36.	•		4 5	0000	9 6	2	9 6	000	- 4
Norway	4 481	· c		· c	9	<b>o</b> c		ų c	600,0	<b>o</b> c	200	4,001	100,4	2 4
People's Republic of China	-	o c	, t	<b>o</b> c	1051	• •		1 C	9 6	0 4	5	ב ק	4,0	2 8
Peru	408	c		¢				٠ د	240	3 <	2	550	670	3 8
Puerto Rico	0	0	334	· c	135	· C		25	3	<b>o</b> c	9,00	1 176	920	9 8
Tripidad and Tobaco	3 2 1 2	• c	}	0	3 -	<b>•</b> •		2.5	0		Q V	000	2,446	9 7
Tinisia	1110	c	0 0	-		<b>&gt;</b> C		2	0	0	0 0	30		= 3
United Kingdom	13 412	• •	•	•	0	<b>&gt;</b> C		o c	0	0 6	> (	9	- 077	(e)
Virgin Islands	10	· c	ď		2 463	, ř	_	7 272	2700	0 0	6	(6)	214,61	3 6
Zaire	999	0	9 0	0	0	ì		,	10	<b>&gt;</b> C	22,0	}	566 666	3 5
Other Western	}	1	,	Þ	,	,		>	*	>	>	>	}	j
Hemisphere	142	0	0	0	0	0	0	0	585	00	0	593	735	24
Other Eastern Hemisphere	2.200	(S)	775	279	285	C	C	559	626	c	50	2 633	4 833	17.
Subtotal Other	966'09	7,042	3,099	869	5,767	475	148	3,033	10,652	330	4.556	35,800	96,796	3,122
Total Imports	131.586	7.042	4.155	1.156	6.205	475	148	3.837	17,843	330	5 872	47 062	178 648	5 763
										3				

Table 21. Imports of Crude Oil and Petroleum Products by Source and PAD District, July 1982 (Thousands of Barrels) (Continued)

Source	Oride 1	and	ished Silo	Blending Compo- nents	Motor Gasoline	Jet Fuel	Kero- sene	P. C.	<u> </u>	Special Naphthas	Prod-	Prod- ucts	Petro-	(Daily Average)
							PAD D	PAD District (						
Arab OPEC Algeria	810	00	266	00	00	06	00	122	687	00	00	1,174	1,984	56
United Arab Emirates	) ()	0	20	458	0	0	00	0	9 6	0	0	458	45 458	15
Subtotal Arab OPEC	7,367	٥	461	458	0	0	0	22	687	0	0	1,827	9,194	282
Other OPEC		•	•		1			•	•		•		i	,
Ecuador	3 162	00	00		0 0	0 0	00	00	00	00	00	0 0	3 163	S S
Nigeria	4,943	,0	0		9	0	0	0	0	0	0	0	4,943	156
Venezuela	2,037	00	319	00	SS 52	00	0 0	495	3,467	٥٥	00	4,535	6,573	212
		<b>S</b>	2		3	•	•	?	i.	•	•	3	Pop'r	į.
Andola	464	٥	0		0	0		0	c	c	0	C	464	4
Bahamas	0	0	0		0	0		0	734	0	0	734	73	24
Brazil	44	0	0		734	۵		0	0	0	0	734	1,181	8
Canada	00	245	m (		50e 50e	00		<b>₹</b>	88 5 88 5	စ္	738 288	1,057	+,05/ 22/	8.
Ghana	0	00	0	00	00	0	0	0	399	90	30	366	368	. 63
Mexico	4,251	0	0		0	0		٥	83	0	0	83	4,485	145
Netherlands Antilloc	۵ د	67	746		252 252 252 252 252 252 252 252 252 252	0		27.7	0 3 080	0 0	<u>ي</u>	88 4 88 4	533	76
Norway	2,562	0	0		90	0		• •	0	0	3	90	2,562	8
People's Republic of China	369	0	0		0	0		0	0	0	(s)	<u>©</u>	989	#
Peru	0 (	0	0		٥	0		0 9	262 7	0	o į	562	35.	~ {
Puerto Hico	0 2	0 0	834 4	00	135	٥		8 5 5 7	06	0 0	172	1,101	101,r 678	5 N
United Kingdom	4,789	0	0	0	0	0		0	0	0	) ( <u>s</u> )	(E)	4,789	77
Virgin Islands	0	0	0	0	1,989	250	-	1,342	3,702	0	297	8,028	8,028	325
Zaire	310	0	0	0	0	0	0	0	0	0	0	0	310	¥
Hemisphere	0	0	6	0	0	0	0	0	585	0	0	585	585	19
Other Eastern Hemisphere	369	0	0	243	239	0	0	450	<b>₹</b>	0	(S)	1,066	1,435	46
Subtotal Other	14,020	312	1,053	243	3,815	220	48	2,701	9,579	6	3,516	18,636	33,850	3,080
Total Imports	32,234	312	1,833	707	4,068	250	148	3,417	13,734	6	1,516	25,999	58,233	1,878
							PAD D	PAD Distnet II						
Arab OPEC	930	-				-		c	٥	٥	0	-	639	
Sandi Arabia	88	٥٥	. 0		0	, 0	0	0	0	0	0	0	689	12
United Arab Emirates	737	0	0	0	a ·	0	0	0	0	٥	0	0	737	7 5
CHOC dead letters	2000	0	0		c	_	G	c	_	_	٥	0	9	٥

を 1 年 日本 10 日本 1

(Continued)

Source	Crude Oil 1	LPG and Ethane	Unfin- ished Oils	Gasoline Blending Compo- nents	Finished Motor Gasoline	Jet Fuel	Kero- sene	Distil. Fuel Oil	Resid. Fuel Oil	Special Naphthas	Orther Prod- ucts 2	Total Prod- ucts	Total Petro- leum	Total (Daily Average)
							PAD D	PAD District II						
Other OPEC Nigena	5,802 5,802	00	00	00	00	00	00	00	0	00	00	00	5,802 5,802	187 187
Other Canada	5,666	5,310	121		82 0	00	0	001	303	127	22	6,503	12,170	393
Mexico	3,012	0	0		00	<b>5 0</b>	00	00	00	00	၀ (၈)	<u>©</u>	(s) 3,012	(s) 97
Norway United Kingdom	1,527	00	00		00	00	00	00	00	00	0 0	00	1,527	4 6
Other Eastern Hemisphere	989	0 0	0	0	0 0	0	0	00	00	00	00	0	686 688	<u>8</u> 8
Total imports	22,867	5,310	121 121		62 62	0 0	o o	<u> </u>	303 303	127	72 72	6,503	21,503	694 947
							PAD Di	PAD District III						
Arab OPEC													İ	
Algeria	1,006	00	00	00	00	0	0 (	0	347	0	0	347	1,353	4
Sauch Arabia	11,063	0	0	0	0	0	0 0	<b>&gt;</b> C	25 E		0 78	88	533	- 2
United Arab Emirates	2,134	0	0	0	0	0	0	Ö	30	0	<u>\$</u>	481	2615	\$ %
Subtotal Arab OPEC	14,202	0	0	0	0	0	0	0	1,514	0	1,315	2,829	17,032	549
Other OPEC														
Ecuador	38 58 58 58 58 58 58 58 58 58 58 58 58 58	0	0 (	0	0	0	O	0	0	0	0	0	385	12
Indonesia	25.536	<b>5</b> C	0 0	0 0	0 0	00	00	0 0	0 0	0	0 0	0	989 989 9	ম :
fran	2,153	0	0	0	0 0	o c	o c	<b>-</b>	<b>-</b>	<b>,</b>	<b>o</b> c	<b>5</b> C	2,530	3 8
Nigeria	17,480	٥	0	0	0	0	0	0	0	S)	9 0	(S)	17.480	3 25
Venezuela	25,859	00	276 276	00	00	00	00	00	1,343 6,43 8,43 8,43	) (S)	00	1,619	4,235	137 886
Other														
Angola	1,793	۰;	0	0	0	0	0	0	0	0	0	0	1,793	86
Ausualia Rehames	<b>5</b> C	\$ C	278	0	00	0 0	0 0	0 0	0 0	0 (	0 (	372	372	₩.
Malaysia	512	<b>&gt;</b> C	8 -	<b>&gt;</b> C	0	> c	o c	<b>&gt;</b> c	<b>&gt;</b> c	<b>-</b>	<b>-</b>	8	8 8	٠. ب
Mexico	15,798	708	0	0	٠ (و	o C	0	2	28	> r-	יו כ	ခဋ္ဌ	216	- 29
Netherlands Antilles	0	0	400	0		0	0	0	0	- 0	•	\$	5 5	<u> </u>
Norway	392	0	0	0	o	0	0	0	0	0	0	0	392	t
People's Republic of China	732	<b>6</b>	0	0	0	0	0	0	0	0	0	0	732	24
Troided and Tohana	0 756	0 0	00	0 0	0 0	0 0	0	0 (	0 0	0 0	£ 3	55 5	75	N (
Tunisie	j -	• •	o	0	o c	<b>o</b> c	<b>o</b> c	<b>5</b> G	<b>-</b>	<b>&gt;</b> C	<u> </u>	<u>e</u> c	2,778	8
United Kingdom	4,818	0	0	0	0	0	0	0	• •	0	0	φ	4.818	155
Virgin Islands	0	0	88	0	0	0	0	0	0	0	2,624	2,712	2,712	87
Zare	300	0	0	0	0	٥	0	0	0	0	0	0	326	=

Table 21. Imports of Crude Oil and Petroleum Products by Source and PAD District, July 1982 (Thousands of Barrels) (continued)

(continued)			i											
Source	Crude Oil 1	LPG and Ethane	Unfin- ished Oils	Gasoline Blending Compo- nents	Finished Motor Gasoline	Jet Fuel	Kero- sene	Distil. Fuel	Resid. Fuel	Special Naphthas	Other Prod- ucts 2	Total Prod- ucts	Total Petro- leum	Total (Daily Average)
							PAD District III	strict III						
Other Western Other Western Hemsphere	142 843 28,141	0 0 802	0 775 1,750	000	0 (§)	000	000	0 0 0	0 367 605	<b>დ</b> 0 0	0 46 2,766	1,189 5,943	150 2,032 34,083	5 66 1,099
Total imports	68,202	802	2,025	0	<u>s</u>	0	0	10	3,463	o	4,081	10,391	78,593	2,535
							PAD District IV	itnet IV						
Other Canada	1,415	267 267	00	00	00	00	00	<u> </u>	00	<u> </u>	135 135	402 402	1,817	59
Total Imports	1,415	267	0	0	0	0	0	(s)	0	(8)	135	402	1,817	29
•							PAD District V	strict V						
Arab OPEC Algera Subtotal Arab OPEC	99 99	00	00	00	00	00	00	00	00	00	00	00	460 460	55
Other OPEC Indonesia Subtotal Other OPEC	3,987 3,987	00	00	• 0	185 185	00	00	87 87	178 178	00	00	450 450	4,437	143 143
Other Brunei	0 573	351	00	0 =	319	00	00	<u>ტ</u> თ	06	0 5	0	19	19	- 1
Malaysia	1,440	00	00	00	0 (s)	00	00	000	00	00		305	4.5	(\$)
People's Republic of China	000	<b>5</b> 04	0 175	00	1,051	00	00	4 ℃	٥6	0 156	00	42 1,459	42 1,459	1 4
Virgin Islands	8 8 0	90	00	00	0 474	225	00	00	00	00	00	0 669 0	408 699	<b>₽</b> 8
Other Eastern Hemisphere Subtotal Other	2,422	(s) 351	0 175	36	46 1,891	225	00	223 233	¥ <b>½</b>	174	88	378 3,316	378 5,737	5 2 2
Total Imports	6,869	351	175	47	2,075	225	0	310	343	174	8	3,766	10,635	343

Includes crude oil imported for storage in the Strategic Petroleum Reserve.
 includes aviation gasoline, waxes, asphalt, lubricants, natural gasoline, isopentane, plant condensate, naphthas less than 400 degrees F and miscellaneous products.
 Less than 500 barrels or less than 500 barrels per day.
 Less than foo barrels or less than 500 barrels barrels barrels or less than 500 barrels per day.

Table 22, Exports of Crude Oil and Petroleum Products by PAD District, July 1962 (Thousands of Barrels)

Channe It.		Petroleum	Administration	Petroleum Administration for Defense Districts	se Districts	
Commodity	****	п	111	2	>	Total
Crude Oil (including lease condensate) 1	(8)	949	0	0	6,156	7,105
Liquefied Petroleum Gases and Ethane	35	7	945	0	92	1.154
Ethane	(s)	0	(8)	0	0	(s)
Propare	18	2	554	0	89	14
Butane	17	S	392	0	66	512
Butane-Propane Motures	0	0	٥	٥	0	0
Finished Motor Gasoline	4	(s)	553	0	41	758
Naphtha-Type Jet Fuel	0	0	0	0	0	0
Kerosene-Type Jet Fuel	0	0	۵	٥	32	32
Kerosene	-	0	0	0	(S)	•
Distillate Fuel Oil	105	0	254	0	380	738
Residual Fuel Oil	1	٥	5,844	0	1,562	7,406
Naphtha < 400 Deg. for Petrochem. Feedstock	39	က	51	***	12	105
Other Oils > 400 Deg. for Petrochem. Feedstock	<b>(9)</b>	59	299	0	111	469
Special Naphthas	4	-	48	0	ო	26
Lubricants	125	13	338	-	51	528
Wax	4	(s)	ဓ	0	ო	37
Petroleum Coke	270	431	1,743	<u>(s)</u>	2,032	4,477
Asphalt	က	45	-	-	-	51
Miscellaneous Products	16	-	33	0	ဗ	23
Total Product Exports	767	561	10,139	Ø	4,399	15,867
Total Exports	797	1,509	10,139	Ø	10,555	22,972

† Exports of crude oil are prohibited under normal circumstances. Some crude oil is shipped to Canada in exchange on a barrel-forbarrel basis. Shipments of crude oil to Puerto Rico and the Virgin Islands are not prohibited because these territories are U.S. possessions.

(a) A standard of crude oil to Puerto Rico and the Virgin Islands are not prohibited because these territories are U.S. possessions.

(b) A standard of crude oil to Puerto Rico and the Virgin Islands are not prohibited because these territories are U.S. Note: Total may not equal sum of components due to independent rounding. Sources: See Explanatory Notes on Data Collection and Estimation.

Table 23, Exports of Crude Oil and Petroleum Products by Dectination . Inly 1982

Destnation	Crude Oil 1	LPG and Ethane	Finished Motor Gasoline	Jet Fuel	Pred Fred	Residual Fuel Oil	Special Naphthas	Lubri- cents	Wax	Petro- leum Coke	Asphalt	Other	Total	Total (Daily Average)
Argentina	0	-	0	0	ø	0	c	7	9	c		9		) `
Australia	0	64	0	0	0	82	9	- 22	9	·-	(E)	119	250	<u>a</u>
Banamas	0		<b>(S)</b>	0	(s)	948	(s)	•		0		(g)	986	
Dalain & Lincontonia	0 0	<u>(</u>	0 (	0 (	0	0		(s)		8	0	<b>(</b>	8	
grant or parentagoning	0 0	~ c	<b>3</b> (	> 0		0 0	۵ (	æ ;	Đ	671	٥	<u>(a)</u>	680	
Camerood	0 0	> c	<b>-</b>	<b>&gt;</b> c	(e)	20	<b>x</b> (	₽ 6		92	0	(s)	113	
Canada	949	7	(8)	0	) C	500	9 6	2 6	2 (	0 ;	o į	0 ;	0	
Chile	0		0	0	હ	2	V C	S <del>c</del>		4	£	נא י	1,505	
China (Tarwan)	0	(e)	0	0	,	٥	0	e o	0	- (S)	Ē		7 F	•
Colombia	0	ιO.	0	0	0	0		00		2	c (		5 5	<u>@</u> §
Costa Rica	٥	83	0	0	0	0	(S)	n	્ર	0	0	(8)	† K	
Denmark	0	-	0	0	0	0	0	<b></b>	(S)	112	0	(E	114	
Dominican Republic	٥	21	0	0	0	0		-	(s)	0	0	(8)	22	
Ecuador	0 (	0	0	0	0	0	(s)	m		۳			4	_
Egypt	0	0	0	0	0	0	0	(s)		•		(s)	٠,-	(S
salvador	٥	0	0	o	0	o	-	-				( <u>s</u>	۸	_
DUE:	သ (	٥	0	٥	0	٥		(s)		98		(E)	95	
France Confession and	<b>)</b>	প্ত '	0	0	0	420	(8)	8		111	9	N	577	
ICA PACITIC ISI	9	0	56	0	တ	26	(s)	(s)	0	0			102	
Ghana	0 (	0	0	0	0	0	0	4	0	82	:	(E)	8	
Greece	၁	٥	0	0	0	0		-	0	0	0	(S)	-	(8)
Guatemala	<b>o</b> c	ର '	0 (	ο (	(S)	0	(s)	4	-	0	\$		25	
Hondinge	20		0 (	0 0	0	φ.	0	٥	0	0		0	٥	
Hong Kong	<b>&gt;</b> c	<u>.</u>	٥ (	<b>3</b> 6	0	0		<u>s</u>		0		(8)	a	<u>(s)</u>
India	20	- 0	٥,	<b>o</b> 6	0	φ.	0	7	(s)	0		<u>(s)</u>	ო	
Indonesia	o c	<b>&gt;</b> c	<b>5</b> 6	5 0	<b>)</b>	<b>D</b> (	0	17		0		හ	26	
	<b>&gt;</b> c	<b>5</b> C	<b>-</b>	> 0	<u>ه</u>	0 0	0	ω .	0	0		٣.	œ	<u>(S</u>
crap	<b>O</b>	<b>9</b>	> 6	5 6	<b>&gt;</b> •	<b>o</b> (	<b>-</b>	0		0			0	
(Salv	o c	50,	> 0	> 0	> 0	0 00	<b>5</b> (	(S)	<u>(S</u>	<u>©</u>		છ	(s)	(s)
vor Coast	0	3 -	<b>o</b> 6	<b>5</b> C	> <	9	50	- (		789	<b>G</b>	139	1,385	
			0	<b>•</b> •	> 0	0	5	<b>5</b>	<b>&gt;</b>	<b>•</b>	<u>(</u>		<u>©</u>	(s)
Labor	<b>.</b>	o u	9	<b>o</b> c	5	5	(s)	\$ '	ક ક	0	5	<b>©</b>	8	
Jordan	¢	0 0	E	<b>o</b> c	3	y c	D C	0 1	N	х Х	(S)		1,413	
Korea Republic of	· c	o C	o C	<b>o</b> C	> <	<b>S</b>	7	~ (	<b>⇒</b> 1	5		( <u>s</u>	<b>,-</b> -	_
	· c	(8)		· c	> 0	0	~ 0	v		<u> </u>	N (		ø	_
( ebanon	o c	2		<b>o</b> C	ه د	<b>o</b> 0	- 0	N C	(S)	9 (	۵ (	<u>(s)</u>	N :	_
	· C	o c		· c	> 0	ĵ	<b>&gt;</b> 0	۰ د	۰ د	<b>O</b> (	9		(s)	_
Malaysia	c	o C		• =	<b>&gt;</b> c	£	0	Y	20	، د	ه د	o ;	_	(S)
Mexico	) C	98.	·	,	2 6	<b>5</b> 6	<b>-</b> ç	- 3	5 6	<b>0</b> (		(s)	- :	_
Netherlands	o c	182	-	9 0	700	5	<u>5</u> 1	Ē,		8	©:	on ·	1,941	
Netherlands Antilles	o c	701		<b>&gt;</b> c	<b>&gt;</b> 1	7,602		, (	<u>ග</u> :	සි		•	2,645	
New Zealand	) C	D E		a د	~ c	3.4	(£)	ا <u>څ</u>	<u>e</u>	0	0	<u>(S</u>	415	
Nicaracus	<b>&gt;</b> c	e)		<b>5</b> C	<b>5</b> 6	<b>5</b> (	4 (			<u>(S</u>	0	က	12	_
Niceria	<b>o</b> C	<b>&gt;</b> C		<b>&gt;</b> C	9 0	<b>၁</b> c	00	α,	0	0		(s)	N	
None	) C	<b>&gt;</b> +	<b>&gt;</b> c	> 0	<b>&gt;</b> c	> 0	<b>5</b> (		(S)	0	(S)	0	-	_
Pacific Torst Terr	a c	~ (§	0	<b>&gt;</b> c	<b>&gt;</b> c	<b>ə</b> (	<b>o</b> (	<u>s</u>		195	0		197	
Parama	c		0	> 0	> 0	<b>&gt;</b> (			0	0	0	(s)	(s)	_
Pagi	<b>&gt;</b> C	9 0	<b>&gt;</b> (	<b>o</b> c	00	٥٥	ଡ ଡ	CV (	<b>S</b>	0	0	(s)	2	
Philippines	o c	۰ د	<b>)</b>	> <	<b>&gt;</b> 6	<b>)</b>	)	m	(S)	0	0		4	_
V 11 1470 0100 x 12 17 17 17 17 17 17 17 17 17 17 17 17 17	>	_	9	2	2	<b>-</b>	(8)	α	(i)	_	_	c	ç	

Table 23. Exports of Crude Oil and Petroleum Products by Destination, July 1982 (Thousands of Barrels)

(continued)	Darreis)													
Destination	Grude Oil 1	LPG and Ethane	Finished Motor Gasoline	Jet Fuel	Dist Out	Residual Fuel Oil	Special Naphthas	Lubri- cants	Wax	Petro- leum Coke	Asphalt	Other	Total	Total (Daily Average)
Puerto Rico	2,045	9	0	0	0	627	-	6	-	ีล	(8)	∞	2,717	88
Rep. of South Africa	0	(8)	0	0	0	o	(s)	ผ	က	0	(S)	ო	29	-
Saudi Arabia	0	4	0	0	0	S	0	S	<b>(S)</b>	2	<u>(6)</u>	ო	38	-
Singapore	0	-	0	0	0	1,353	(S)	9	(S)	0	(O)	4	1,363	4
Spain	0	-	0	0	0	786	0	10	(S)	429	0	-	1,227	40
Surinam	0	0	0	0	0	0	٥	(s)	O	0	٥	(s)	(8)	(8)
Sweden	0	4	0	0	٥	144	٥	7	(S)	0	0	-	164	ດ
Switzerland	0	(s)	0	0	0	(s)	0	٣-	0	0	0	-	ผ	(8)
Thailand	0	(8)	٥	0	0	0	0	2	<u>(S</u>	8	(8)	100	122	4
Trinidad and Tobago	0	(s)	0	0	0	0	0	4	0	0	0	(8)	4	(S)
Turkey	0	0	0	0	0	0	(s)	4	(s)	0	0	0	4	<u>(8</u>
United Arab Emirates	0	2	۵	٥	٥	0	0	-	0	0	٥	(8)	က	(S)
United Kingdom	0	8	0	0	-	0	4	-	(8)	6	(s)	:	111	4
U.S.S.R.	0	0	0	0	0	(s)	0	4	0	0	0	٥	40	-
Uruguay	٥	<u>(s)</u>	٥	٥	0	0	0	-	0	0	٥	<u>(s)</u>	-	(8)
Venezuela	0	0	Φ	0	0	0	-	-	(S)	<u>(S</u>	(S)	8	c)	(S)
Virgin Islands	3,830	17	0	0	0	0	0	0	0	4	0	N	3,864	125
West Germany	0	-	0	0	0	0	(s)	9	23	108	0	93	230	7
Yugoslavia	0	0	0	0	0	0	0	(8)	0	0	0	0	<u>(s)</u>	(s)
Other	281	<b>о</b>	0	0	0	0	(s)	12	<u>(s)</u>	0	-	8	305	2
Total	7,105	1,154	758	35	738	7,406	26	528	37	4,477	51	629	22,972	741

Exports of crude oil are prohibited under normal circumstances. Some crude oil is shipped to Canada in exchange, on a barrel-for-barrel basis. Shipments of crude oil to Puerto Rico and the Virgin Islands are not prohibited because these territories are U.S. possessions
 (s) Less than 500 barrels or less than 500 barrels per day.
 Note: Total may not equal sum of components due to independent rounding
 Sources' See Explanatory Notes on Data Collection and Estimation.

Table 24. Stocks of Crude Oil and Petroleum Products by PAD District, July 31, 1982 (Thousands of Barrels)

Commodity	East Coast	PAD District Appala- chian t #1	Total	Appala- chian #2	PAD Ind.,	PAD District Minn. Wisc., Daks.	Okla., Kans, Mo.	Total	Texas	Texas Gulf Coast	PAD District III	1 -	New	Totai	PAD Dist. IV Rocky Mt.	PAD Dist V West Coast	United
Crude Oil (incl. lease condensate)¹ Refinery Tank Farms and Pipelines Leases Strategic Petroleum Reserve² Alaskan In-Transit Total	11111	111111	14,641 2,917 67 0 0 17,625	111111	111111	111111	11111	15,023 57,527 1,578 0 0 74,128	111111	11111	11111	111111	111111	45,691 93,064 17,944 267,154 0 423,853	2,301 9,929 1,488 0 0 13,718	23,988 30,090 1,649 0 26,669 82,396	101,644 193,527 22,726 267,154 26,669 611,720
Petrokeum Products Refinesy Bulk Terminal Pipeline Natural Gas Processing Plant	42,462 113,709 24,332 423 180,926	3,568 6,921 1 2,140 640 13,269 1	46,030 120,630 26,472 1,064 194,196	1,129 3,837 1,416 0 6,382	45,307 37,264 11,890 2,675 97,136	6,315 8,285 3,595 260 18,455	22,141 12,223 17,184 19,496 71,044	74,892 61,609 34,085 22,431	9,760 4,509 8,100 4,728 27,097	79,808 35,351 9,635 27,304 152,098	49,093 8,686 7,110 10,922 75,811	4,951 4,429 13,500 3,922 26,802	1,766 343 1,116 1,094 4,319 2	145,378 53,318 39,461 47,971 286,128	12,854 2,255 2,622 240 17,971	65,632 20,597 4,024 623 90,876	344,786 258,409 106,664 72,328 782,187
Natural Gasoline and Isopentane Refinery Pipeline Natural Gas Processing Plant Total	8000	0 0 9 9 9	3 19 25	0000	8 8 8 8	2 2 2 2 2	82 330 850 1,262	113 432 891 1,436	135 282 356 773	450 52 3,797 4,299	183 0 638 638	31 31 50	21 62 95 178	791 413 4,733 5,937	170 45 216	នួនខ្	940 1,058 5,713 7,711
Unfractionated Stream Pipeline	000	000	000	000	78 172	0	9 1,619 1,628	87 1,715 1,802	0 4 4 4 4	28 3,069 3,097	83 88 83	32 30	333	56 3,683 3,739	0 % %	000	143 5,433 5,576
Plant Condensate Refinery Pipeline Pipeline Natural Gas Processing Plant Total	0000	0000	0000	0000	ကဝဆက္	0000	0044	2027	6 790 47 843	172 318 20 510	o 49 62 62	92 4 7 103	0 1 1 8	270 1,178 87 1,535	0000	0000	275 1,178 103 1,556
Ethane Refinery Bulk Terminal Pipeline Natural Gas Processing Plant Total	00000	00000	00000	00000	e 8 8 8 8 <del>1</del>	945 945 945	0 51 198 338 587	9 120 1,198 360 1,687	23 23 23 23	365 1,121 75 1,551 3,112	0 112 142 254	000++	00000	365 1,121 406 1,717 3,609	0 0 (§)	-000-	375 1,241 1,604 2,077 5,297
Propane for Petrochemical Feedstock Use Refinery	7.7	00	7.7	00	95 95	00	00	95	00	7	450 450	00	00	457 457	00	00	623 623
Propane for Other Uses Refinery Bulk Terminal Fripeline Natural Gas Processing Plant	517 502 738 365 2,122	5 0 860 616 1,481	522 502 1,598 981 3,603	59 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	1,059 955 1,202 2,384 5,600	29 172 223 493	247 594 1,551 13,602 15,994	1,337 1,618 2,984 16,209 22,148	182 227 665 2,429 3,503	403 14,260 558 6,020 21,241	717 89 239 6,235 7,280	20 276 3,614 3,914	4 0 157 246 407	1,310 14,596 1,895 18,544 36,345	155 16 120 122 413	150 0 0 245 395	3,474 16,732 6,597 36,101 62,904
See footnotes at end of table.										ļ		}	[				

68

Table 24, Stocks of Crude Oil and Petroleum Products by PAD District, July 31, 1962 (Thousands of Barrels) (continued)

			-		DA	DAD Dietrice	=	-			PAD District III	ithet III		٦		80	
Commodity	East	Appala- chian	Total	Appala- chian	Ind. F. Ky.	Minn, Wisc.,	Okla. Kans.	Total	Texas	Gulf Coast	Sast Sast	No. La., Ark.	New	Total	Plocky K	West Coast	United
Butane for Petro. Feed. Use Refrirery	88	00	44	0 0	00	19	00	6t 6t	00	<b>4</b> 4	00	₩. <del>-</del>	00	4 4	00	ღო	88 88
Butane for Other Uses Refinery	176 309 39 39 54.4	0 0 157 4 4	176 309 177 42 704	3000 £	453 302 907 97 1,759	63 0 12 75	386 87 191 1,927 2,591	1,066 389 1,098 2,036 4,589	161 1,007 1,007 2,336	606 4,625 73 4,295 9,599	813 0 5 2,589 3,407	2 0 15 15 16	2 0 87 117 206	1,584 4,786 1,174 8,165 15,709	148 0 112 33 293	570 0 0 339 909	3,544 5,484 2,561 10,615 22,204
Butane-Propane Mixtures for Petro. Feed. Use Refinery	Use 0	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00
Butane-Propane Mixtures for Other Uses Refinery	00000	00000	00000	00000	0 0 0 (s) 28 28 28 38	00000	0 0 19 56 75	0 58 19 56 133	00 65 57	9 26 5 40	e o 5 o ē	000	20010	37 0 668 16 721	(s) 0	192 0 0 195	231 58 687 76 1,052
Ethane-Propane Mixtures Bulk Terminal	0000	0000	0000	0000	0 99	0000	601 670 1,275	4 667 670 1,341	224 745 229 1,198	2,188 125 5,863 8,176	0000	0000	106 246 352	2,412 978 6,338 9,728	115 0 115	0000	2,416 1,760 7,008 11,184
Isobutane Refinery Bulk Terminal Pipeline Natural Gas Processing Plant Total		00040	00000	80008	135 62 326 47 570	35 300 32	218 10 92 428 748	465 72 418 478 1,433	67 175 175 153 153	246 1,658 1,858 1,389 3,419	664 0 0 1,452 2,116	50022	5 0 0 58 1 717	992 1,768 359 3,100 6,219	404-6	28 20 28	1,513 1,840 821 3,593 7,767
Other Hydrocarbons and Alcohol Refinery		23 23	88	<b></b>	105	00	00	105	- T-	66	88	00	00	88	00	5 5	E2 E2
Unfinished Oils Refinery Naphthas and Lighter Gas Oils	3,544 . 2,858 . 7,210 3,198	9, 4,60	3,838 7 2,865 29 7,639 11 3,509 41 17,851	88 38 9 44 1	3,257 3,361 3,902 4,004	65 1 40 227 4 137 4 469	1,681 958 2,494 1,918 7,051	5,041 4,359 6,717 6,061 22,178	1,066 9 374 7 1,162 1 295 3 2,897	7,468 6,541 11,359 3,214 7 30,582	4,834 4,146 4,482 1,2,085 15,547	203 30 384 24 641	200 16 16 90 17 1 313	13,771 13,107 17,477 5,625 49,980	440 347 1,585 547 2,919	4,611 4,164 10,814 5,273 24,862	27,701 24,842 44,232 21,015 117,790

See footnotes at end of table.

Table 24. Stocks of Crude Oil and Petroleum Products by PAD District, July 31, 1982 (Thousands of Barrels) (continued)

Carporology	Commodify																	
Components	francisco -		Appala-		Appala-	7	Minn.	Okla,		$\vdash$	Tovac	PAD Dis	trict III			PAD	PAD	
Components		Coast	¥		tg #			Kans.,			£ £		~~~	New		Oist ≥	Dist V	United
4,866   22 4,946   59 6,766   572 2289   1454   157 44   1   1   1   1   1   1   1   1   1	Motor Gazoline Blending Components										Coast	Coast		MEXICO	ヿ	¥.	Coast	
Components   Com	Rufk Torminal	4,595	20	4,676	25	5 875	263											
	Pipeline	- 271	-	272	9	ğ	3 ~	1 5 %	0,039 0,439	1,464	8,710	7,837	138	276	18,425	1,560	B. 143	41 4
Components   Com	Total	4.866	တ္လ	0 0	0 5	19	10	8 8	307	, 59 65	40	<del>-</del> c	- 0	0 0	88	0	478	
Second colored color	Aviation County of the		<b>!</b>	of h	ጽ	6,166	267	2,470	9,261	1,686	8,754	7,838	139	0 276	18 603	0 9	0	in i
1,00   0   0   0   0   0   0   0   0   0	Refinent describe Blending Components Refinent												}	ì	2000	200.	8,621	43.0
1,000   1,00	Total		00	0 (	0	8	0	-	8	8	24	Š	ď	•	,			
1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1,		•	5	>	0	8	0	•••	00 00	32	84	3 23	00	<b>-</b>	242	00	88 8	4
1,306   288   4,74   51   597   515   61	Refined													1		•	8	¥
Secondary   Seco	Bulk Terminal	4,306		4,574	91	5,972	266		40 575	010								
aut         1.57 10         0.0         1.47 45         60 5         6.10         1.52 0         2.70         1.60         0	Pipeline	35,781		38,881	1,802	17,365	3,396		27.478	200,7	5,201	5,521	35	245	17,264	1,944	8,233	42.5
Secoline   Casoline	Natural Gas Processing Plant			14,745	605	6,130	1,232		15.290	200	7.227	300	2,717	<u> </u>	11,499	1,107	9,486	88.4
Secoline   2.076	Total Finished Motor Gasotine	54.017				0 2	0		0	0	3	) () ()	90	159	18,587	<u>.</u>	2,036	51,8
Casoline         2.776         146         2.222         45         2.964         664         1794         4037         2.778         442         168         1.055         2.847         819         1.622         98         6.188         1.202         6.641         794         4037         2.789         4037         1.728         2.962         1.622         1.648         1.625         2.847         819         1.622         9.96         6.341         600         0	Finished Leaded Motor Gasoline					/04/67	c29'c		53,343	5,956			10,560		47,350	4,282	0 19,755	182,94
Secondary   Seco	Refinery	0400	,															
Casoline	Bulk Terminal	18 286	146	2,552	£	2,904	964		5.641	794	4.037	0246	977	į				
Age of the control of the co	Pipeline	6.501	200	39,745	923	8,711	1,883		14,489	1055	2,847	940	4 6	95	8,198	1,208	3,843	21,11
Casoline         2230         122         2.352         46         3.064         9.1487         4.834         6.516         4.914         336         22,636         2.737         9.995         1.9481         5.316         4.914         336         22,636         2.737         9.995         1.994         9.996         9.914         336         22,636         2.737         9.996         9.914         336         22,636         4.737         9.996         9.914         336         22,636         4.737         9.996         9.914         336         22,636         4.737         9.996         9.914         336         22,636         4.737         9.996         9.914         336         22,636         4.737         9.996         9.916         9.917         9.916 <td>as Processing Plant</td> <td>15,0</td> <td>\$</td> <td>0,000 0,000 1,000</td> <td>442</td> <td>3,439</td> <td>737</td> <td></td> <td>8,771</td> <td>282</td> <td>2597</td> <td>4720</td> <td>726</td> <td>9</td> <td>6,341</td> <td>9</td> <td>5,059</td> <td>46,3</td>	as Processing Plant	15,0	\$	0,000 0,000 1,000	442	3,439	737		8,771	282	2597	4720	726	9	6,341	9	5,059	46,3
Casoline         2.220         1.22         2.352         4.6         3.264         9.143         28.901         26.11         9.481         5.316         4.914         386         2.268         2.727         9.982	Total	26.968		C1 06	0 ,		0		0	0	0	9 0	<b>1</b>	y c	8,119 0	କ୍ଷ୍ଟେ	1,090	25,63
Casoline         2.230         12.23         1.246         3.068         333         1,487         4,984         858         5,164         2/752         203         89         9,066         734         4,385           17,488         1,641         19,129         1849         1858         1,487         4,984         1,888         5,164         2/752         203         89         9,066         73         4,385           17,488         1,641         19,129         1849         1,686         1,487         4,984         1,988         1,195         65         5,188         477         4,427           17,488         1,641         1,985         1,487         4,984         1,988         1,195         65         5,188         477         1,487         4,427         1,487         4,885         5,164         278         77         1,447         4,427         3,487         5,686         5,646         271         1,487         4,427         3,488         4,747         4,427         3,488         4,77         4,427         4,427         3,488         4,77         4,427         3,488         4,77         4,427         3,488         4,77         4,427         3,488         4,788				/00'02	₹.		3,264					5.316	4 914		0	٥	0	
2230         122         2,326         122         2,326         123         1,487         4,834         656         5,164         2,752         203         89         9,066         734         4,385           17,488         1,641         19,139         849         8,633         1,539         1,2964         1,049         1,968         881         1,1195         65         5,156         477         4,248         77         10,488         407         4,247         77         10,488         407         4,248         77         10,488         407         477         10,488         407         478         477         477         478         477         477         477         478         477         477         478         477         477         478         478         478         478         478         <	Defend Undeaded Motor Gasoline														3	5,141	2866	93,14
17,488         1,641         19,129         649         6,533         1,487         4,834         8.88         5,164         2,752         203         89,066         734         4,335           ————————————————————————————————————	Rulk Toming	2,230		2,352	46		000											
7,324         536         7,660         1,639         1,296         1,048         1,968         881         1,195         65         5,158         417         4,277	8	17,488		19,129	840								83		90.6	734	300 6	Ç
27,042         2,299         29,341         1,058         14,392         2,361         6,806         24,417         3,345         9,872         5,596         4,248         77         10,468         402         946         402         946         231         24,692         1,553         9,758	Total			7,860									1,195		5,158	417	4,000	1000
Colored HTML   Colo	. VVII. simplestinglestinglestinglestinglestinglestingstratestingstrates			29,341	-								4,248		0,468	405	946	26.19
22         0         22         0         22         0	Sasohol												5,646		4,692	1,553	9,758	89.76
22         0	Refinery	ď	•															
22         0         22         0         1         0		1 C	0 1	0	0	0	0	0	C	_	c	•	•					
Color   Colo		- 1	0 0	۱ م	0	2	0	4	2 4	o c	<b>o</b> c	<b>&gt;</b> c	٥ (	0 (	0	8	ıo	
22         0         22         0         123         0         82         205         13         418         79         0         0         510         18         221           Int         0         0         0         0         0         0         0         0         0         0         101         0		•	>	_	0	2	0	4	22	, 0	<b>•</b> •	> <	<b>&gt;</b> c	<b>-</b>	Φ.	0	0	Ö
22         0         22         0         123         0         82         205         13         418         79         0         0         510         18         221           11         0	hished Aviation Gasoline										•	,	>	>	>	ς,	Ŋ	ĕ
368         36         404         13         152         9         82         205         13         418         79         0         0         510         18         227           nt         0         0         0         0         0         0         0         0         0         0         101         0 <td></td> <td>N</td> <td>0</td> <td>8</td> <td>c</td> <td>Ş</td> <td>•</td> <td>į</td> <td></td>		N	0	8	c	Ş	•	į										
mt         0	Suik leminal	368	36	1 2	٠ <u>٣</u>	3 5	<u>ې</u> د	8 8	202	23	418	79	0	0	510	ž,	203	920
11     9     20     0<	Johns Gae Proposing Dans	0	0	0	0	90	y c	8 8	g g	20	ଷ '	<b>ரை</b>	82	41	157	4	33,	2 6
390     36     426     13     315     32     231     591     177     439     89     28     41     774     32     558		0	0	0	0	0	• 0	3 c	3 0	4 5	- (	Ψ.	0	0	ဖ	0	0	į
	***************************************	390	36	456	13	315	3.0	3,5	201	<u> </u>	0 5	0	0	0	101	0	0	5
	phtha-Type Jet Fuel							i	3	3	3	D 20	8	<del>1</del>	774	35	558	2,381
	lefinery	204	35	230	c	666	į											
	luik i erminal	=	0	3 8	o co	334	g ;			222	928	558	119		160	486	300	,
	(perme annual an	27.1	0	27.1	2	2 *	± [			<b>₩</b>	١Ω	0	47		2	3 ¢	8 8	4,132
	0tal	486	, 44	230	٠ <u>٢</u>	- 0	25			<del>1</del> 54	0	16	. 88		2 5	<u>.</u>	g	628
			:	3	2	9	200	•		525			1		ţ			4

Table 24. Stocks of Grude Oil and Petroleum Products by PAD Dietrict, July 31, 1982 (Thousands of Barrels) (continued)

			-		103			-								1	1 lasted
Commodity	East A	PAD District i	Total	Appala- chian #2	Ind.	Minn., C Wisc., K Daks	Okla., Kans., Mo.	Total	Texes	Texas Gulf Coast	Soast Table	*	New	Total	Pist, IV Mt Mt	Coast Coast	States
Kerosene-Type Jet Fuel Refinery Bulk Terminal Pipeline	1,117 4,220 2,458 7,795	0 125 62 187	1,117 4,345 2,520 7,982	55 115 211	1,510 2,627 753 4,890	102 301 171 574	142 545 1,378 2,065	1,795 3,528 2,417 7,740	292 165 562 1,019	2,709 1,194 921 4,824	2,434 98 624 3,156	15 48 1,724 1,787	41 25 12 78	5,491 1,530 3,843 10,864	334 246 159 739	3,667 1,785 638 6,090	12,404 11,434 9,577 33,415
Kerosene Refinery Bulk Terminal Pipeline Natural Gas Processing Plant Total	101 2,956 362 0 3,419	46 363 17 0 426	3,319 379 0 3,845	216 60 0 276	741 967 54 0 1,762	27 75 0 0 102	315 19 28 0 362	1,083 1,277 142 0 2,502	84 8 9 1 10 17	819 442 85 0 1,346	561 82 231 0 874	12 18 144 (s)	45 0 1 5 5 8	1,494 550 462 4 2,510	54 0 0 0 TA	45 45 1 189	2,884 5,215 984 9,087
Total Distillate Fuel Oits Refinery Bulk Terminal Pipeline Natural Gas Processing Plant Total Distillate Fuel Oil	6,092 41,873 6,563 0 54,528	455 2,224 188 0 2,867	6,547 44,097 6,751 0 57,395	56 1,281 545 0 1,882	7,129 11,388 2,202 0 20,719	1,605 3,609 954 0 6,168	4,257 4,495 5,053 13,806	13,047 20,773 8,754 1 1	1,147 1,097 564 1 2,809	9,540 3,183 1,907 0	5,773 1,855 2,100 0 9,728	1,242 1,175 3,947 0 6,364	353 111 170 0 634	18,055 7,421 8,688 1 34,165	2,021 829 539 0 0,3,389	4,609 5,142 875 0 10,626	44,279 78,262 25,607 2 148,150
Dist. Fuel Oils Less No. 4 Fuel Oil Refinery Bulk Terminal Pipeline Natural Gas Processing Plant Total	6,092 40,730 6,563 0 53,385	451 2,222 188 0 0 2,861	6,543 42,952 6,751 0 56,246	56 1,271 545 0 1,872	7,101 11,223 2,202 0 20,526	1,605 3,581 954 0 6,140	4,257 4,495 5,053 13,806	13,019 20,570 8,754 1 42,344	1,097	9,223 3,183 1,907 0	5,636 1,757 2,100 0 0 1 9,493	1,138 1,174 3,947 0 6,259	278 111 170 0 559	17,366 7,322 8,688 1 1 33,377	2,018 829 539 0 3,386	4,545 5,103 875 0 10,523	43,491 76,776 25,607 2 145,876
No. 4 Fuel Oil Refinery Bulk Terminal Total	1,143	400	4 1,145 1,149	0 5 5	28 165 193	28 29	000	203 231	3 56	317	137 3 98 7 235	105 105	75	689 99 788	<b>ო o</b> ო	2 8 5 E	788 1,486 2,274
Residual Fuel Oils Refinery Bulk Terminal Pipeline Total	3,358 23,307 0 26,665	108 305 0 0 413	3,466 23,612 0 27,078	109 2 216 3 325	2,548 899 0 3,447	503 155 858	495 787 0 1,282	3,655 7,2,057 0 0,5,712	5 375 7 29 0 0	5,127 1,774 0 1 6,902	7 4,140 4 4,472 1 0 2 8,612	346 75 0 0 421	00000	10,048 6,350 1 16,399	485	7,264 2,011 14 9,289	24,918 34,030 15 58,963
Naphtha < 400 Deg. Petro. Feedstock Refinery	118	e e	118	00	88	00	59	142	2 132 2 132	1,044	4 270 4 270	7.7	0 2	1,453	00	295	2,008
Other Oils > 400 Deg. Petro. Feedstock Refinery		8 122 8 122	130	00	185		00	1 186 1 186	176 176 176	6 1,213	3 268	8 16 8 16	99	1,673	00	87	
Special Naphthas Refinery Bulk Terminal Natural Gas Processing Plant	11 833	74 50 50 67 67 67	**************************************	88 53 0 0 1 1 46 0 46	204 20 0 0 0 363		0 11 0 0 0 0 0 183 183 183 183 183 183 183 183 183 183			1,26	8008 500F	1 181 0 84 0 0	-40v	1,555 94 107 1,746	7 4 0 0 7 0 7 0 7 0 0 7 0 0 7 0 0 0 0 0	299 40 40 339	2,306 1,193 107 3,606

See footnotes at end of table.

Table 24. Stocks of Crude Oil and Petroleum Products by PAD District, July 31, 1982 (Thousands of Barrels) (continued)

Commodity	Fast	PAD District Appala-	F	<del>  -</del> -	PAI	U	N Okla,	1 1	Texas	Texas	PAD District III	No La.	New	اً ا	PAD Dist. IV	PAD Dist. V	United
	Coast	#		2	II., Ky.	Daks	Wo.		Inland	Coast	Coast	Ark.	Мехесо		Mt	Coast	Spates
	147	375	522	0	56	0	65	121	0	245	80	0	0	335	ιn	4	1.027
	833	383	1,076	0	9	0	496	1,096	0	1,773	1,092	2	0	2,935	5	598	5,775
***************************************	627	178	803	<b>o</b> (	<u> </u>	0 9	158	88	27	2,271	52	161	0	2,710	80	<u>\$</u>	3,935
***************************************	2,372	1,17	3,542	5 C	1,277	<u> </u>	S &	2,118	33 a	43 15,24	8, 18, 18, 18,	302	ကက	332 6,312	~ <b>%</b>	716	2,781 13,518
ax, Microcrystalline RefineryTotal	00	9 4 8	46 46	00	00	00	នន	ឧឧ	8 8	8 8	თთ	+ <b>+</b>	00	2 2	00	00	129 129
Wax, Crystalline-Fully Refined Refinery		શ প্র	<del>4</del> <del>4</del>	00	88	00	22 42	<b>8</b> 2 83	00	57	85 83 1	00	00	\$2 \$2 \$2	ທທ	9 9	359 359
fax, Crystalline-Other Refinery	44	88	5. 0.	00	8 8	00	ဖ ဖ	ထ လ	00	176 176	00	00	00	176 176	00	5 5	270 270
***************************************	930 930	00	930	00	436 436	213 213	451 451	1,100	00	<del>1,1</del>	380	191	00	748 748	492 492	2,584 2,584	5,854 5,854
	2,122 2,239 4,361	207 514 721	2,329 2,753 5,082	399 183 582	2,674 1,394 4,068	1,637 599 2,236	1,357 304 1,661	6,067 2,480 8,547	619 619	558 0 558	905 139 1,044	994 120 1,114	138 0 138	3,214 259 3,473	2,438 0 2,438	2,086 442 2,528	16,134 5,934 22,068
oad Oil Refinery	00	00	00	00	44	00	4 4	8 <del>4</del> 4	00	00	00	81 81	00	00	ოო	88	\$ \$
Miscellaneous Products Refinery Bulk Terminal Pipeline Natural Gas Processing Plant	427 124 5 0 556	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	467 124 31 0 622	26 0 0 27	98 19 3 129	ō∞00 %	14 3 0 (s) 17	252 25 26 195 195	45 49 49 49	483 0 1,296 1,781	158 13 0 172	88 % 0 82 EE	1 0 (S)	748 38 40 1,376 2,202	00000	342 20 0 0 362	1,689 207 106 1,380 3,382
Total Stocks, All Oils	1	1	211,821	1	1	1	1	267,145	ı	1	1	1	1	709,981	31,689	31,689 173,272 1,393,907	,393,907

1 Grude oil data are not collected by refinery district.
2 Includes 33804 thousands of barrels of domestic crude oil.
(s) Less than 500 barrels.
Note: Total may not equal sum of components due to independent rounding. Sources: See Explanatory Notes on Data Collection and Estimation.

— Not Applicable.

Table 25. Movements of Crude Oil and Petroleum Products by Pipeline, Tanker, and Barge Between PAD Districts, July 1982 (Thousands of Barrels)

		From 1 to			From Il to	ļ		From III to	11 10		Į.	From IV to		From V to	) t
Commodity	=	=	>	-	=	2	-	=	2	>	=	=	>	-	<b>=</b>
Crude Oil	8	0	0	0	0	0	422	1,806	٥	0	٥	0	0	2,197	14,564
Patrolein Products	8.808	999	83	2 701	5.349	2.346	84.918	25.792	0	3.381	1.223	٥	1,139	20	40
Natural Gasoline and Isopentane	0	0	0	0	324	0	0	1,181	0	0	324	0	0	0	0
Unfractionated Stream	0	a	0	o	0	٥	0	0	0	0	0	0	0	0	٥
Plant Condensate	0	0	0	0	0	0	0	8	0	0	0	0	0	0	Q.
Liquefied Petroleum Gases	0		0	833	1,548	8	1,779	4,197	0	0	0	0	0	0	0
Unfinished Oils	90		0	٥	0	0	287	261	0	190	0	0	0	0	0
Motor Gasoline Blending Components	0		0	0	0	0	0	658	0	0	0	0	0	0	0
Aviation Gasoline Blending Components	0		0	0	0	0	0	0	0	0	0	0	0	0	0
Finished Motor Gasoline	6,061		8	972	1,864	1,396	50,878	11,905	0	1,357	514	0	\$	0	0
Finished Leaded Motor Gasoline	3,449		0	441	1,223	814	22,899	6,026	0	581	329	0	583	0	0
Finished Unleaded Motor Gasoline	2,612	393	8	<b>53</b>	2	582	27,979	5,879	0	9//	155	0	415	0	0
Gasohol	0	0	0	0	0	0	0	0	0	٥	٥	O	0	0	0
Finished Aviation Gasoline	0	0	0	0	0	52	185	199	0	0	0	0	0	0	0
Naphtha-Type Jet Fuel	5	0	0	0	6	0	83	2	0	172	9	0	92	0	0
Kerosene-Type Jet Fuel	123	0	0	106	97	3	6,474	1,478	0	281	4	0	23	٥	0
Kerosene	₩	0	0	0		0	338	135	0	0	0	0	0	0	0
Distillate Fuel Oil	2,330	0	0	206	656	23	19,781	4,394	0	413	371	0	288	0	0
Distillate Fuel Oil Less No. 4	2,330	0	0	206	929	23	19,733	4,394	0	413	371	0	288	0	Q
No. 4 Fuel Oil	0	0	0	0	0	0	48	0	0	0	0	0	0	0	0
Residual Fuel Oil	٥	36	0	254	715	0	3,090	259	0	924	0	٥	0	20	9
South and Outer Oils for Pero.	ţ	,	•	6	8	(	ć	6	(	(	•	•	•	(	(
Cooming Manabiban	ò	200	<b>&gt;</b> c	χ μ 7	3 °	<b>&gt;</b> 0	8 6	3 3	<b>&gt;</b> 0	<b>&gt;</b> (	0	> 0	> 0	> 0	ه د
Appropriate the second	<b>&gt;</b> !	> ;	٥ (	2	<b>-</b>	<b>.</b>	505	\$	۰ د	> :	י כ	<b>•</b>	، د	· د	۰ د
LUDRICANIS	17	20	0	23	2	0	397	348	0	4	0	0	0	0	0
Wax minimum mention of the properties of the pro	٥	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Asphalt and Road Oil	0	0	0	161	0	0	483	438	٥	0	o	0	0	0	٥
Miscellaneous Products	0	4	0	23	0	0	178	138	0	0	0	0	0	٥	0
Total All Products	8,842	999	83	2,701	5,349	2,346	85,340	27,598	۵	3,381	1,223	٥	1,139	2,217	14,604
															-

Note: Total may not equal sum of components due to independent rounding. Sources: See Explanatory Notes on Data Collection and Estimation.

. .... 40, movements of Petroleum Products by Pipeline Between PAD Districts, July 1982 (Thousands of Barrels)

Commodity	From I to	-	From II to			From	From III to			From IV to		_
	=	1	=	2	-	=	≥	>	=	=	,	
Natural Gasoline and Isopentane	,						:		-	=	>	
Unfractionated Stream	<b>.</b>	0	324	0	0	1,181	0	C	324	•	ć	
Plant Condensate	<b>-</b>	> <	0 0	0	0	٥	0	0	5	<b>•</b> •	<b>&gt;</b> C	
Liquehed Petroleum Gases	<b>o</b> c	Š	)   	0 ;	0	8	٥	0	· c	9 6	> 0	
Motor Gasoline Blending Components	•	3 0	χ. Σ	8	1,614	4,197	0	0	• =	9 6	<b>&gt;</b> C	
Aviation Gasoline Blending Components	0	<b>&gt;</b> •	0	0	0	659	0	· C	• -	•	0	
Finished Motor Gasoline	707.7	<u>ا</u>	0	0	0	0	0	· c	) C	•	- (	
Finished Leaded Motor Gasoline	9,600	187	7,864	1,396	41,214	10,779	0	864	514	<b>o</b> c	2 6	
Finished Unleaded Motor Gasoline	2000	707		4	18,574	5,529	0	438	320	<b>o</b> c	2 8	
Gasohol	Ç.,	ţ c	£ °	582	3	5,250	0	426	155	c	415	
Finished Aviation Gasoline	0	o c	<b>&gt;</b> 0	<b>&gt;</b> {	0	0	0	0	0	0	? =	
Naphtra-Type Jet Fuel	0	o	2	Q ·	87 (	139	0	0	0	0	· C	
Kerosene-Type Jet Fuel	116	8	26	644	273	2 5	0	172	10	0	8	
Distribute Fuel Oil	=	0	0	0	, 269 269	3.	o c	204	40	0	55	
Distillate Fuel Oil Less No. 4	1,553	169	656	23	15,253	4.036	c	413	, t	0 0	0	
No. 4 Fuel Oil	1,553	99	959	ន	15,253	4.036	• =	2 6	3 6	<b>)</b>	88	
Residual Fuel Oil	0 (	0	0	0	0	0	0	<u>}</u>	- c	<b>5</b>	288 288	
Miscellaneous Products	<b>&gt;</b> c	o 6	0	0	0	0	0	0	9 0	<b>&gt;</b> c	<b>-</b>	
Total	6.467	1 020	0 0	0	0	8	0	0	0	0	<b>&gt;</b> C	
H   10 de 1 - T - 1 - 1 - 1		66	000,4	4.240	53,004	22,447	0	1,656	1,223	0	1.139	
Note: Joila may not bonial crim of company												

Note: Total may not equal sum of components due to independent rounding. Source: See Explanatory Notes on Data Collection and Estmation.

Table 27. Movements of Crude Oil and Petroleum Products by Tanker and Barge Between PAD Districts, July 1982 (Thousands of Barrels)

		From I to		Fron	From II to			From From	From III to				
Commodity			 						2			From	From V to
	=	=	>	<u>-</u>	=	_	Ne¥ Eng	Sent Ati	Low	=	>	_	=
Crude Oil	æ	0	0	°		422			,				
Petroleum Products	9 944				•	į	3	77	0	1,806	0	2,197	14,564
Liquefied Petroleum Gases	, 10,	8 8 8	g c	762	799	21,914	-	3,266	17,541	3,345	1,725	2	Ç
Finished Motor Coopers	60				<b>&gt;</b> C	287		0 8	<del>2</del>	0	0	0	9
Finshed Aviation Gasoline	1,274				0	9,664		8 F	24	561	190	0	0
Naphtha-Type Jet Fuel					0	157		3 4	76	5. 6.	493	0 0	0
Kerosene-Type Jet Fuel	7				0	390		0	390	3 0	> c	<b>&gt;</b> C	0 0
Kerosene Distillate End Ou	5				0 0	2,121		281	1,366	241	74	0	0
Residual Firel Oil	111				0	4 528		9 69	0	0	0	0	0
Naphtha and Other Oils for Petro Food 11se	0 0				715	3,090		582	2,1/3	328	0 8	٥	0
Special Naphthas	6 0				წ	82		8 8	t 0	8 8	924	ରୁ ଦ	<del>\$</del> 0
Wax	17				7 €	303		121	182	25	0	0	0
	0 0				0	3		9 0	67	348	4,	0	0
Miscellaneous Products	0				00	483	0	249	8,	438 0	0	00	0 0
Total					>	1/8		120	22	27	0	0	0
	2,375	999	83	762	799	22,336	1.107	3 688	17 5.44	40.4	1		
Note: Total may not postal ourse at							•		Š	0,10	57.	2,217	14,684

Note: Total may not equal sum of components due to independent rounding. Source: See Explanatory Notes on Data Collection and Estimation

Table 28. Net Movements of Crude Oil and Petroleum Products by Pipeline, Tanker and Barge Between PAD Districts, July 1982 (Thousands of Barrels)

	-	P.A.D. District	_	a.	P.A.D. District II		9	P.A.D. District III	2	a.	P.A.D. District IV	>	P.A.	P.A.D. Distnet V	
Commodity	Receipts into PADD I	Shipments from PADD 1	Net Receipts PADD I	Receipts into PADD II	Shipments from PADD II	Net Receipts PADD II	Receipts into	Shipments from PADD III	Net Receipts PADD III	Receipts into PADD IV	Shipments from PADD IV	Net Receipts PADD IV	Receipts into PADD V	Shipments from PADD V	Net Receipts PADD V
Crude Oil	2,619	8	2,585	1,840	0	1,840	14,564	2,228	12,336	0	0	0	0	16,761	-16,761
But allower But A safe	000	6	000	000	900 07	707	0	144001	000	0,00	0000	Ţ	,	Ç.	4
Notice Confide	87,039	755,8	78,082	30,823	10,390	125,62	6,055	114,091	-108,036	7,340 0	7,362	9 6	4,003	8 6	4,043 5,043
Unfractionated Stream	0	0	0	20	+ 0 0	0	35°	0	0	0	254	-35	0	0	0
Plant Condensate	0	0	0	N	0	8	0	8	q	٥	0	0	0	0	0
Liquefied Petroleum Gases	2,612	24	2,588	4,197	2,441	1,756	1,572	5,976	4,404	9	0	9	0	0	0
Unfinished Oils	287	89	279	569	0	569	0	738	-738	0	0	0	190	0	190
Motor Gasoline Blending Components	0	0	O	658	0	658	۵	658	-658	0	0	0	0	٥	٥
Aviation Gasoline Blending Components	0	0	0	0	0	o	0	0	0	0	O	0	0	o	0
Finished Motor Gasoline	51,850	6,573	45,277	18,480	4,232	14,248	2,293	64,140	-61,847	1,396	1,218	178	2,144	0	2,144
Finished Leaded Motor Gasoline	23,340	3,485	19,855	9,834	2,478	7,356	1,259	29,506	-28,247	814	648	166	870	0	870
Finished Unleaded Motor Gasoline	28,510	3,088	25,422	8,646	1,754	6,892	1,034	34,634	-33,600	582	570	12	1,274	0	1,274
Gasohol	0	0	0	0	0	0	o	0	0	0	0	0	0	0	0
Finished Aviation Gasoline	185	0	185	199	52	174	0	384	-384	25	0	52	0	0	0
Naphtha-Type Jet Fuel	S	121	545	133	5	72	61	837	-776	۵	102	-102	264	0	564
Kerosene-Type Jet Fuel	6,580	123	6,457	1,605	847	758	97	8,233	-8,136	44	29	585	336	0	336
Kerosene	338	81	257	216	۵	216	0	473	473	0	0	0	0	0	0
Distrilate Fuel Oil	19,987	2,330	17,657	7,095	1,083	6,012	656	24,588	-23,932	221	629	438	701	0	701
Distrilate Fuel Oil Less No. 4	19,939	2,330	17,609	7,095	1,083	6,012	656	24,540	-23,884	23	629	88 1	701	0	707
NO. 4 FIDE OF	84	o	48	0	0	0	0	48	48	0	0	۵	٥	0	0
Naphtha and Other Oils for Petro.	405,5	8	3,328	529	696 6	-710	791	4,273	-3,482	0	0	0	924	8	864
Feedstock Use	110	220	-110	100	91	o	216	115	101	C	o	0	0	0	0
Special Naphthas	318	0	318	164	15	149	0	467	467	0	0	0	0	0	0
Lubricants	450	37	413	365	74	291	4	789	-748	0	0	٥	\$	0	44
Wax	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Asphalt and Road Oil	644	0	\$	438	161	277	0	921	-921	0	0	0	0	0	0
Miscellaneous Products	221	4	247	138	73	65	4	316	-312	٥	0	0	0	0	0
Total All Products	90,258	9,591	80,667	37,663	10,396	27,267	20,619	116,319	-95,700	2,346	2,362	-16	4,603	16,821	-12,218

Note: Total may not equal sum of components due to independent rounding.

Sources: See Explanatory Notes on Data Collection and Estimation

Table 29, Production of No.4 Fuel Oil and Residual Fuel Oil By Sulfur Content, July 1982 (Thousands of Barrels)

	18	PAD District	-		ă	DAD D. Atiet	1 1							Ì			
•		Appelo				DING!	-				PAD District II	illet III			PAD	PAD	
Commodify	East	East Oppose	Total	-Biede	ng.	Minn.	OKlar.		Texas	exas	ď	- N	Nous		Dist 1V	Dist. V	United
	Coast	Ŧ	- 1	$\overline{}$	II. Ky	Wisc. Daks.	Kans., Mo.	E OCE	Inland	Court Coast	Onlife Special		Mexico	Total	Rocky	West	States
											10000				ML	Coast	
No. 4 Fuel Oil	•	•	•	•	8												
0.00 to 0.30% Sulfur		<b>†</b> C	1 (	<b>-</b>	2	<b>\$</b>	0	ଛ	42	182	-355	72	197	108	32	104	268
0.31 to 0.50% Sulfur		4 6	V C	<b>&gt;</b> c	<b>-</b>	0 6	۰ ۰	0	2	181	4-14	N	0	174	0	0	176
0.51 to 1.00% Sulfur		o <	o c	> 0	<b>&gt;</b> (	<b>5</b>	0 (	0	4	0	0	0	0	14	32	0	46
1.01 to 2.00% Sulfur	0 0	9 6	9 6	<b>o</b> c	o e	2 6	<b>o</b> (	9	က္ ကို	-	0	<b></b>	197	176	0	9	138
Greater Than 2.00% Sulfur	0	10	10	0	) <u>4</u>	90	<b>-</b>	D 7	စ္ င	00	0 ;	٥ و	0 (	16	0	en .	2
						•	•	1	•	>	Ž	Ô	>	-272	0	82	-173
A SO A D SOCK O	3,726	213	3,939	74	2,249	462	614	3,399	669	7,004	7.150	C	Š	74.4.74			
0.00 to 0.30% Suitur	88	4	720	0	0	0	0		105	5 6	3 5	30	3 5	0. 0. 0. 0.	25.	8,812	31,907
0.31 to 0.50% Suffer		157	1,028	0	32	0	123	155	1 4	3 5	- œ	7 6	y c	9 6	φ <u>;</u>	582	1,773
colico	1,652	0	1,652	74	1.229	c	573	1 575	70.4	1 2	9 6	- (	<b>5</b> (	287	חור	955,1	2,344
1.01 to 2.00% Sulfur	98	16	102	C	736	1,	120	900	2 5	2,030	D C C	661	<b>x</b>	4,435	8	1,234	8,963
Greater Than 2.00% Sulfur	•	C	437	· c	252	100	2 4	000	20.	S	1,2/2	œ.	<u> </u>	1,718	25	5,304	8,262
	į	•	2	>	707	202	ů,	790	9	3,939	4,120	80	49	8,204	92	920	9.965

Note: Total may not equal sum of components due to independent rounding. Source: See Explanatory Notes on Data Collection and Estimation

Table 30. Stocks of No.4 Fuel Oil and Residual Fuel Oil By Sulfur Centent, July 1982 (Thousands of Barrels)

			-		1	1000000					PAD District III	 	! !			PAD	•
Commodity	East At	Appala- chian	Total	Appala-	100	Minn.	Okla., Kans.,	Total	Texas	Texas		-	New Mexico	Total	Rocky	West West	United
	-				ż	Jaks.	Wo.			Coast	Coast	7		-	-		
No. 4 Fuel Oil - 0.00 to 0.30% Suffur	<b>-</b>	4	4	0	8	0	0	Ø	0	8	83	თ -	0 (	132	0 0	00	138
	39.	0	394	0	0	0	0	0	0	0	0 (	<b>,</b> .	0 0	- 6	<b>o</b> c	> <	533
Total	38	4	398	0	Ø	0	0	N	0	96	33	4	>	3	•	•	}
No 4 Fire Oil 0.31 to 0.50% Sulfur							•	(	,	c	c	c	c	18	m	12	35
Refinery	0	0	0	0	7	0 (	0 0	N C	<u>o</u> c	<b>S</b> C	<b>&gt;</b> <	c	0	9 0	0	0	45
Bulk Terminal	<b>&amp;</b> &	00	<del>2</del> 4	00	pα	9 0	0	N C	8	0	0	0	0	18	ო	12	8
No. 4 Fuel Oil — 0.51 to 1.00% Suffur	c	o	0	0	17	0	0	17	53	22	0	က	75	328	0 0	<u>ε</u> ς	§ 33
Bulk Terminal	304	00	304	00	18 18	88 88	00	192 209	0 6Z	80	8 8	<b>0</b> M	75	426	00	φ	957
1 Oil - 1 01 to 2 00%											;	•	•	č	c	c	98
Refinery	0	0	0	00	0 0	00	0 0	00	o c	00	g =	0	0	, o	0	4 E	373
Bulk Terminal	88 88	00	334	00	0	0	00	0	o 61	00	22 0	O	0	38	0	4	409
No.4 Fuel Oil Greater Than 2.00% Sulfur		1	•	•	ľ	•	c	1	c	c	5	ď	c	171	0	32	216
Refinery	0	0	0 8	0 9	~ 1	<b>&gt;</b> 0	<b>-</b>	` ;	0 0	o C	5 0	3 0	0	0	0	0	79
Bulk Terminal	88	N (N)	88	2 6	<b>-</b> ∞	00	0	- 8	•	. 0	79	86	0	177	0	82	295
Residual Fuel Oil – 0.00 to 0.30% Sulfur Refinery	306	စ္တ	336	00	0 8	00	00	۶ ٥	88	174	27 2.026	ឌ ឌ	<u>ნ</u> 0	325	115	723 13	1,499 5,093
Bulk Terminal	3,302	<sup>-</sup> ස	3,332	00	3 23	00	0	ន		180		25	5	2,386	115	736	6,592
Residual Firel Oil = 0.31 to 0.50% Sulfur												1	•	3	S	170	0000
Refinery	557	53	586		113	<b>с</b>	<b>ω</b> ¢	124	m C	g c	% C	200	00	0	90	į	1,260
Bulk TerminalTotal	1,260	° 8	1,260	00	113	<b>)</b> M	> 00	124		r gr		109	0	189	R	1,274	3,462
Residual Fuel Oil - 0.51 to 1.00% Sulfur		•			1	•	Ş	,		•		÷	v.	3 7 18	13	639	7,179
Refinery Brill Terminal	1,438	o &	4,901	2 <u>8</u>	408	5	9	50	8	553	280	0	0	862	0 (	261	6,728
****	6,291	48	6,339		1,437	12	324	2,075				113	o	4,580	2	06	08,61
Residual Fuel Oil - 1.01 to 2.00% Sulfur	į	Ş	Š		O V S	307	220					9	•	1,210	22	4,132	7,714
Refinery	3,751	<sup>2</sup> 23	3,980	8 2	325	2	206	896	0 8	139	28	0 0	0 +	803	0 8	1,378	7,129
Total	. 4,623		4,901		1,195	8	726				-	2	-	2,013	5	2	2
10 18	Suffur	c	ž.		566									4,606	244	496	6,324
тыла!	2 5	.,	10,475	00	113	85 SS	190 224	362	0 10	1,076	3,368	137	o 4	2,624 7,230		855 855	13,820 20,144
[Ola	in loyang													•	•	ì	ų
Residual Fuel Oil - Sultur Content Not Specified Pipeline		00		00	00	00	00		00		00	00	00		<b>0</b> 0	4 4	ūħ
10131																	

Note: Total may not equal sum of components due to independent rounding Sources: See Explanatory Notes on Data Collection and Estimation.

Table 31. Imports of Residual Fuel Oil by Sulfur Content by Country of Origin, July 1982 (Thousands of Barrels)

Arab OPEC Algeria Iraq Iraq Cautar Catar Saudi Arabia United Arab Emirates	0.00 to	0.31 to	0.51 to	1.01 to	Greater	N S	Total
Arab OPEC Algeria Iraq Iraq Gatar Gatar Saudi Arabia		ማር?	1.00%	200%	2.00%	Specified	
Algenia				•			
Kuwart Kuwart Gatar Saudi Arabia Emirates	1,034	0	0	0	0	0	1,034
Oatar Saudi Arabia	۵ و د	00	00	0	0 (	0 (	0 (
Saudi Arabia	? C	<b>o</b> c	0 0	<b>5</b> 6	<b>5</b> C	0 6	3,0
United Arab Emirates		, 0	0	o c	635	<b>o</b> c	A S
	0	· c		· c	}	<b>,</b> c	3
Subtotal Arab OPEC	1,567	0	0	• •	835	0	2,201
Other OPEC							
Ecuador	0	0	0	0	0	0	0
Gabon	0	0	0	0	0	0	٥
Indonesia	0	151	0	98	0	0	178
iran	0	0	0	0	0	0	0
Nigeria	0	0	0	0	0	0	0
Venezuela	1,471	375	6 6 8 8	4 4 8 4 8	2,498 2,498	00	4,811 4,989
Other	•	,	•	•			•
Angola	0	0 (	0 (	0	٥,	<b>.</b>	0
Australia	0 10	0	Ď	0	0 8	00	2
Bolinia Rolinia	2	-	<b>-</b>	0	8	<b>&gt;</b> c	\$ 0
Brazil	0 0	o c	o <b>c</b>	o c	o c	o c	9 6
Brinaí	0	•	<b>&gt;</b> C	o c	o c	<b>&gt;</b> C	0
Canada	(g)	o	469	70	N	0	54.
Egypt	0	0	0	0	0	0	0
France	0	٥	172	0	0	0	172
Ghana	339	0	0	0	0	0	399
Liberia	0	0	0	0	0	0	0
Malaysia	0	o	0	0	0	0	0
Wexico	0	0	0	0	472	0	472
Netherlands	0 (	0 (	0	0	0	<u>۵</u>	0
Netrienands Amblies	0	0 (	00 r	37	2,953	0 (	3,089
Noway	0	0	<b>•</b>	0 ;	٥	0 (	o ;
reopies republic of China	<b>&gt;</b> 0	<b>-</b>	0 6	5 6	o (	5 (	2 8
Diode Dies	<b>-</b>	<b>5</b> 6	202	> 0	<b>&gt;</b> 0	<b>&gt;</b> 0	9
Domodia	o c	0	0	<b>o</b> c	<b>o</b> c	<b>&gt;</b> 6	> <
Costs	<b>&gt;</b> c	<b>-</b> c	<b>o</b> 6	0	0	<b>5</b> 6	> 0
Spall	> 4	<b>5</b> (	<b>•</b>	<b>&gt;</b> (	<b>5</b> (	<b>&gt;</b> (	<b>5</b> (
Syna	<b>5</b> (	<b>-</b>	<b>.</b>	9 (	0 (	0 (	<b>•</b>
Training	> 0	<b>5</b>	<b>5</b>	5 0	<b>5</b> (	<b>&gt;</b> (	<b>&gt;</b> •
iumsta 11-11-11-11-11-11-11-11-11-11-11-11-11-	<b>-</b>	<b>.</b>	0 (	<b>~</b> (	<b>&gt;</b> (	<b>5</b> (	<b>-</b>
United Kingdom	Q ·	O ·	0	0	0	0	0
Vergin Islands	0	0	1,849	1,548	8	0	3,702
Yugoslavia	0	0	0	0	0	0	0
Zaire	0	0	0	O	0	٥	0
Other Western							
Hemisphere	0	388	196	0	0	o	585 855
Other Eastern Hamischere	•	86	367	¥	164	c	303
Subtotal Other	507	418	3,416	1,785	4,524	00	to,652
		ř		0	1	•	
Total Imports	3,544	792	3,614	2,235	7,657	0	17,843

(4) Less than 500 barrets.

Note: Total may not equal sum of components due to independent rounding. Sources: See Explanatory Notes on Data Collection and Estimation.

Table 32, Imports of Residual Fuel Oil by Sulfur Content by State of Entry, July 1982 (Thousands of Barrels)

			P.	Residual Fuel Oil	7		
State	0.00 to 0.30%	0.31 to 0.50%	0.51 to 1.00%	1.01 to 2.00%	Greater Than 2.00%	Not Specified	Total
PAD District I	1,934	614	2,767	2,053	6,366	0	13,734
Florida	0	0	683	604	1,512	0	2,799
Maine	٥	0	0	٥	613	0	613
Maryland	0	0	299	303	246	0	848
Massachusetts	0	0	172	0	1,159	0	1,331
New Jersey	366	\$	109	96	1,578	0	2,232
New York	1,569	530	701	926	436	0	4,162
North Carolina	0	0	0	8	0	0	94
Pennsylvania	0	0	503	0	0	0	503
Rhode Island	0	0	0	0	159	0	159
South Carolina	0	0	0	0	20	0	20
Virginia	0	0	599	30	613	0	942
PAD District II	0	0	282	20	8	0	303
Michigan	0	0	212	o	0	0	212
North Dakota	0	0	0	8	64	0	23
Ohio	0	0	20	0	0	0	2
PAD District III	1,608	0	566	0	1,289	٥	3,463
Louisiana	1,279	0	199	0	942	0	2419
Texas	329	0	367	0	347	0	1,043
PAD District IV	0	0	0	0	•	0	0
PAD District V	8	178	0	163	0	0	343
Hawaii	87	178	0	183	0	0	343
Washington	0	0	0	0	0	0	٥
All PAD Districts	3,544	792	3,614	2,235	7,657	0	17,843

Note: Total may not equal sum of components due to independent rounding. Sources: See Explanatory Notes on Data Collection and Estimation.



# Glossary

## **Definitions of Petroleum Products and Other Terms**

Alcohol. The family name of a group of organic chemical compounds composed of carbon, hydrogen, and oxygen. The series of molecules vary in chain length and are composed of a hydrocarbon plus a hydroxyl group, CH-(CH)n-OH. "Alcohol" includes ethanol and methanol.

Asphalt. A dark-brown-to-black cement-like material, containing bitumens as the predominant constituents, obtained by petroleum processing. The definition includes crude asphalt as well as the following finished products: cements, fluxes, the asphalt content of emulsions (exclusive of water), and petroleum distillates blended with asphalt to make cutback asphalts. The conversion factor is 6.5 42-gallon barrels per short ton.

ASTM. The acronym for the American Society for Testing and Materials.

Aviation Gasoline Blending Components. Finished components in the gasoline range which will be used for blending or compounding into finished aviation gasoline.

Aviation Gasoline (Finished). All special grades of gasoline for use in aviation reciprocating engines, as given in ASTM Specification D 910 and Military Specification MIL-G-5572.

Barrel. A volumetric unit of measure for crude oil and petroleum products equivalent to 42 U.S. gallons. This measure is used in most statistical reports. Factors for converting petroleum coke, asphalt, and wax to barrels are given in the definitions for these products.

Butane. A normally gaseous paraffinic hydrocarbon, C<sub>4</sub>H<sub>10</sub>. It is extracted from natural gas or refinery gas streams. Butane is covered by ASTM Specification D1835 and Gas Processors Association Specification for commercial butane.

- Normal Butane—A saturated straight-chain hydrocarbon of butane. It is a colorless paraffinic gas that boils at a temperature of 31.1° F. This classification includes mixtures of gases that contain 80 percent or more normal butane.
- Other Butanes—All butanes not included as normal butane or isobutane.

Butane-Propane Mixtures. Mixtures consisting exclusively of butane and propane that conform to ASTM Specification D1835 and Gas Processors Specification for commercial butane-propane. They are extracted from natural gas and refinery gas streams.

Butylene. An olefinic hydrocarbon, C<sub>4</sub>H<sub>8</sub> recovered from refinery processes. It is reported in the "Butane" category.

Coal. A generic term applied to carbonaceous rocks that were formed by the partial or complete decomposition of vegetation. These stratified carbonaceous rocks are either solid or brittle and are highly combustible. Includes lignite, bituminous coal, and anthracite which conform to ASTM Specification D 388.

Crude Oil (including Lease Condensate). A mixture of hydrocarbons that existed in liquid phase in underground reservoirs and remains liquid at atmospheric pressure after passing through surface separating facilities. Lease condensate is included. Drips are also included, but topped crude (residual) oil and other unfinished oils are excluded. Liquids produced at natural gas processing plants and mixed with crude oil are likewise excluded where identifiable. Crude oil is considered as either domestic or foreign, according to the following:

- Domestic—Crude oil produced in the United States or from its outer continental shelf as defined in 43 U.S.C. 1331. Hydrocarbons such as shale oil and tar sand oil are included.
- Foreign—Crude oil produced outside the United States, Imported Athabasca hydrocarbons are included.

Distillate Fuel Oil. A general classification for one of the petroleum fractions produced in conventional distillation operations. It is used primarily for space heating, on- and-off-highway diesel engine fuel (including railroad engine fuel and fuel for agricultural machinery), and electric power generation. Included are products known as No. 1 and No. 2 heating oils, No. 1 and No. 2 diesel fuel oils, and No. 4 fuel oil.

- No. 1 Fuel Oil—A light distillate fuel oil intended for vaporizing pot-type burners. ASTM Specification D 396 specifies for this grade maximum distillation temperatures of  $400^{\circ}$  F. at the 10-percent point and  $550^{\circ}$  F. at the 90-percent point, and kinematic viscosities between 1.4 and 2.2 centistokes at  $100^{\circ}$  F.
- No. 2 Fuel Oil—A distillate fuel oil for domestic heating for use in atomizing-type burners or for moderate capacity commercial-industrial burner units. ASTM Specification D 396 specifies for this grade temperatures at the 90-percent point between 540° and 640° F., and kinematic viscosities between 2.0 and 3.6 centistokes at 100° F.
- No. 1 and No. 2 Diesel Fuel Oils—Distillate fuel oils used in compression-ignition engines, as given by ASTM Specification D 975:
  - 1. No. 1-D—A volatile distillate fuel oil in the 400° to 550° F. boiling range for engines in service requiring frequent speed and load changes. Type C-B diesel fuel, which is used for city buses and similar operations, is included.
  - 2. No. 2-D—A distillate fuel oil of lower volatility in the 540° to 640° F, boiling range for engines in industrial and heavy mobile service. Type R-R diesel fuel for railroad compression-ignition engines and Type T-T for diesel-engine trucks are included.
- No. 4 Fuel Oil—A fuel oil for commercial burner installations not equipped with preheating facilities. It is used extensively in industrial plants. This grade is a blend of distillate fuel oil and residual fuel oil stocks that conforms to ASTM Specification D 396 or Federal Specification VV-F-815C; its kinematic viscosity is between 5.8 and 26.4 centistokes at 100° F. Also included is No. 4-D, a fuel oil for low- and medium-speed diesel engines that conforms to ASTM Specification D 975.

Eastern Hemisphere. That half of the earth east of the Atlantic Ocean which includes Europe, Asia, Africa, and Australia. The Hawaiian Foreign Trade Zone is in this hemisphere.

Electric Energy (Purchased). Electricity purchased for refinery operations that is not produced within the refinery complex.

Ethane. A normally gaseous paraffinic hydrocarbon, C<sub>2</sub>H<sub>6</sub>, extracted from natural gas and refinery gas streams. "Ethane" includes any product containing 90 percent liquid volume or more ethane.

Ethane-Propane Mixtures. Mixtures of ethane and propane in which neither component is 90 percent or more of the liquid volume. It is extracted for natural gas and refinery gas streams.

Ethylene. An olefinic hydrocarbon, C<sub>2</sub>H<sub>4</sub>, recovered from refinery and petrochemical processes. It is reported in the "Ethane" category.

Field Production. Represents crude oil production on leases, natural gas liquids production at natural gas processing plants, and new supply of other hydrocarbons and alcohol.

Gas Well Gas. Natural gas produced from gas wells. Such gas may be either associated gas or non-associated gas.

- Associated Gas—Free natural gas in immediate contact, but not in solution, with crude oil in the reservoir.
- Non-Associated Gas-Free natural gas not in contact with, nor dissolved in, crude oil in the reservoir.

Imported Crude Oil Burned as Fuel. The amount of foreign crude oil burned as a fuel oil, usually as residual fuel oil, without being processed as such. "Imported crude oil burned as fuel" includes lease condensate and liquid hydrocarbons produced from tar sand oil, gilsonite, and oil shale.

Isobutane. A saturated branch-chain isomer of butane. It is a colorless paraffinic gas that boils at temperature of 10.9° F. This classification includes mixtures of gases that contain 80 percent liquid volume or more isobutane. It is extracted from natural gas and refinery gas streams.

Isopentane. A saturated branch-chain hydrocarbon, C<sub>5</sub>H<sub>12</sub>, obtained by fractionation of natural gasoline or isomerization of normal pentane.

Kerosene. A petroleum distillate that boils at a temperature between 300° and 550° F., that has a flash point higher than 100° F. by ASTM Method D 56, that has a gravity range from 40° to 46° API, and that has a burning point in the range of 150° to 175° F. It is a clean-burning product suitable for use as as illuminant when burned in wick lamps. Includes grades of kerosene called range oil having properties similar to No. 1 fuel oil, but with a gravity of about 43° API and having a maximum end-point of 625° F. Kerosene is used in space heaters, cook stoves, and water heaters.

Kerosene-Type Jet Fuel. A quality kerosene product with an average gravity of 40.7° API, a 10 percent distillation temperature of 400° F., and an end-point of 572° F. It is covered by ASTM Specification D 1655 and Military Specification MIL-T-5624L (Grade JP-5 and JP-8), It is used primarily for commercial turbojet and turboprop aircraft engines.

Lease Condensate. A natural gas liquid recovered from gas well gas (associated and non-associated) in lease separators or natural gas field facilities. Lease condensate consists primarily of pentanes and heavier hydrocarbons.

Lease Separator. A surface facility used for separating casinghead gas from produced crude oil and water and separating gas from that portion of associated gas and non-associated gas that liquefies at the temperature and pressure conditions of the separator.

Liquefied Petroleum Gases (LPG). Propane, propylene, butanes, butylene, ethane-propane mixtures, and isobutane produced at refineries or natural gas processing plants, including plants that fractionate raw natural gas plant liquids. Formerly called "Liquefied Gases."

Liquefied Refinery Gases (LRG). Liquefied petroleum gases fractionated from refinery or still gases. Through compression and/or refrigeration they are retained in the liquid state. The reported categories are ethane and/or ethylene, propane and/or propylene, butane and/or butylene, butane-propane mixtures, and isobutane. Excludes still gases used for chemical or rubber manufacture which are reported as petrochemical feedstocks and also excludes liquefied gases ready for blending into gasoline which are reported as gasoline blending components. Liquefied refinery gases are reported for use as petrochemical feedstocks, other uses, or both.

Lubricants. A substance used to reduce friction between bearing surfaces. Petroleum lubricants may be produced either from distillates or residues. Other substances may be added to impart or improve certain required properties. "Lubricants" includes all grades of lubricating oils from spindle oil to cylinder oil and those used in greases. The three categories reported are:

- Bright Stock—A refined, high viscosity lubricating oil base stock that is usually made from a residuum by a treatment such as deasphalting, acid treatment, or solvent extraction.
- Neutral—A distillate lubricating oil base stock with a viscosity that is usually not above 550 Saybolt Universal Seconds (SUS) at 100° F. It is prepared by a treatment such as hydrofining, acid treatment, or solvent extraction.
- Other—A lubricating oil base stock used in finished lubricating oils and greases, including black, coastal, and red oils.

Miscellaneous Products. Includes all finished products not classified elsewhere. "Miscellaneous products" include petrolatum, absorption oils, ram-jet fuel, petroleum rocket fuels, synthetic natural gas feedstocks, and other finished products.

Motor Gasoline Blending Components. Finished components in the gasoline range that will be used for blending or compounding into finished motor gasoline. Pool gasoline is included in this category.

Motor Gasoline (Finished). A complex mixture of relatively volatile hydrocarbons, with or without small quantities of additives, that have been blended to form a fuel suitable for use in spark-ignition

engines. Specifications for motor gasoline, as given in ASTM Specification D 439 or Federal Specification VV-G-1690B, include a boiling range of 122° to 158° F. at the 10-percent point to 365° to 374° F. at the 90-percent point and a Reid vapor pressure range from 9 to 15 psi. "Motor gasoline" includes finished leaded gasoline, finished unleaded gasoline, and gasohol. Blendstock is excluded until blending has been completed. Alcohol that is to be used in the blending of gasohol is also excluded.

- Finished Leaded Gasoline—Contains more than 0.05 grams of lead per gallon or more than 0.005 grams of phosphorus per gallon. The actual lead content of any given gallon, however, may vary as a function of the size of the producer and company according to specific Environmental Protection Agency waiver provisions. Premium and regular grades are included, depending on the octane rating.
- Finished Unleaded Gasoline—Contains up to 0.05 grams of lead per gallon and 0.005 grams of phosphorus per gallon. Premium and regular grades are included, depending on the octane rating.
- Gasohol—A blend of alcohol and finished motor gasoline that is no more than 90 percent of finished motor gasoline (leaded or unleaded as described above) and no less than 10 percent or more alcohol (ethanol or methanol).

Motor Gasoline (Total). Includes finished leaded motor gasoline, finished unleaded motor gasoline, motor gasoline blending components, and gasohol.

Naphtha-Type Jet Fuel. A fuel in the heavy naphtha boiling range with an average gravity of 52.8° API and 20 to 90 percent distillation temperatures of 290° to 470° F., meeting Military Specification MIL-T-5624L (Grade JP-4). JP-4 is used for turbojet and turboprop aircraft engines, primarily by the military. This category excludes ram-jet and petroleum rocket fuels, which are included in the "Miscellaneous Products" category.

Natural Gas. A mixture of hydrocarbons and small quantities of various nonhydrocarbons existing in the gaseous phase or in solution with crude oil in underground reservoirs.

Natural Gas Field Facility. A field facility designed to process natural gas produced from more than one lease for the purpose of recovering condensate from a stream of natural gas; however, some field facilities are designed to recover propane, butane, natural gasoline, etc., and to control the quality of natural gas to be marketed.

Natural Gas Plant Liquids. Natural gas liquids recovered from natural gas in gas processing plants, and in some situations, from natural gas field facilities. Natural gas liquids extracted by fractionators are also included. These liquids are defined according to the published specifications of the Gas Processors Association and the American Society for Testing and Materials, and are classified as follows: Ethane, propane, ethane-propane mix, isobutane, butane, butane-propane mix, isopentane, natural gasoline, plant condensate, unfractionated stream, and other products from natural gas processing plants (i.e., products meeting the standards of finished petroleum products produced at natural gas processing plants, such as finished motor gasoline, finished aviation gasoline, special naphthas, kerosene, distillate fuel oil, and miscellaneous products).

Natural Gas Processing Plant. A facility designed to recover natural gas liquids from a stream of natural gas that may or may not have been processed through lease separators or natural gas field facilities. The facility also controls the quality of natural gas to be marketed. Cycling plants are classified as gas processing plants.

Natural Gasoline. A mixture of hydrocarbons, mostly pentanes and heavier, extracted from natural gas, that meets vapor pressure, end-point, and other specifications for natural gasoline set by the C Producers Association.

OPEC. The acronym for the Organization of Petroleum Exporting Countries, oil-producing a exporting countries that have organized for the purpose of negotiating with oil companies on matter oil production, prices, and future concession rights. Current members are Algeria,, Ecuador, Gal Indonesia, Iran, Iraq, Kuwait, Libya, Nigeria, Qatar, Saudi Arabia, United Arab Emirates, Venezuela.

Operable Distillation Capacity. The maximum amount of input that can be processed by a crudistillation unit in a 24-hour period, making allowances for processing limitations due to type

grades of inputs, limitations of downstream facilities, scheduled and unscheduled downtimes, as environmental constraints. Includes any shutdown capacity that could be placed in operation within days.

Other Hydrocarbons. Materials received by a refinery and consumed as raw materials. Include hydrogen, coal, tar derivatives, gilsonite, and natural gas received by the refinery for reforming in hydrogen. Natural gas to be used as fuel is excluded.

Petrochemical Feedstocks. Chemical feedstocks derived from petroleum, principally for the mar facture of synthetic rubber and a variety of plastics. The categories reported are "Naphtha-less th 400° F. end-point" and "Other oils over 400° F. end-point."

- Naphtha less than 400° F. end-point—A naphtha with an end point of less than 400° F. and that reported as used as a petrochemical feedstock.
- Other oils over 400° F. end-point—Oils with an end point over 400° F. and that are reported used as a petrochemical feedstock.

Petroleum Coke. A residue, the final product of the condensation process in cracking. This product reported as marketable coke or catalyst coke. The conversion factor is 5 42-gallon barrels per short to

- Marketable Coke—Those grades of coke that are produced in delayed or fluid cokers and whimay be recovered as relatively pure carbon. This "green" coke may be sold or further purified calcining.
- Catalyst Coke—In many catalytic operations (i.e., catalytic cracking) carbon is deposited on catalyst, thus deactivating the catalyst. The catalyst is reactivated by burning off the carb which is used as fuel in the refinery process. This carbon or coke is not recoverable in concentrated form.

Petroleum Products. Petroleum products are obtained from the processing of crude oil (includ lease condensate), natural gas, and other hydrocarbon compounds. Petroleum products includinished oils, natural gasoline and isopentane, plant condensate, unfractionated stream, ethaliquefied petroleum gases, aviation gasoline, motor gasoline, naphtha-type jet fuel, kerosene-type fuel, kerosene, distillate fuel oil, residual fuel oil, naphtha less than 400° F. end-point, other oils-o 400° F. end-point, special naphthas, lubricants, waxes, petroleum coke, asphalt, road oil, still gas, a miscellaneous products.

Petroleum Refinery. An installation that manufactures finished petroleum products from crude unfinished oils, natural gas plant liquids, other hydrocarbons, and alcohol.

Plant Condensate. One of the natural gas plant liquids, mostly pentanes and heavier hydrocarbo recovered and separated as liquids at gas inlet separators or scrubbers in processing plants.

Primary Stocks. Stocks of crude oil or petroleum products held in storage at (or in) leases, refiner natural gas processing plants, pipelines, tankfarms, and bulk terminals that can store at least 50, barrels of petroleum products or that can receive petroleum products by tanker, barge, or pipel Crude oil that is in transit from Alaska, or that is stored on Federal leases or in the Strategic Petrole Reserve is included. "Primary Stocks" excludes stocks of foreign origin that are held in bon warehouse storage.

Propane. A normally gaseous hydrocarbon. C<sub>3</sub>H<sub>8</sub> extracted from natural gas and refinery gas strea It is used primarily as a fuel and as a petrochemical feedstock. Propane is covered by AS Specification D1835, Gas Processors Association for commercial and HD-5 propane, and AS Specification for special duty propane.

Propylene. An olefinic hydrocarbon, C<sub>3</sub>H<sub>6</sub>, recovered from refinery and petrochemical processes. reported in the "Propane" category.

Residual Fuel Oil. Topped crude of refinery operations. "Residual Fuel Oil" includes No. 5 and N fuel oils as defined in ASTM Specification D 396 and Federal Specification VV-F-815C; Navy Spefuel oil as defined in Military Specification MIL-F-859E including Amendment 2; Bunker C fuel Residual fuel oil is used for the production of electric power, space heating, vessel bunkering, various industrial purposes. Imports of residual fuel oil include "Imported Crude Oil Burned as Fu

Road Oil. Any heavy petroleum oil, including residual asphaltic oils, used as a dust palliative and surface treatment of roads and highways. It is generally produced in six grades; from 0, the most liquid, to 5, the most viscous.

Special Naphthas. All finished products within the gasoline range that are used as paint thinners, cleaners, and solvents. These products are refined to a specified flash point and have a boiling range of 90° to 220° F. "Special naphthas" includes all commercial hexane and cleaning solvents conforming to ASTM Specifications D1836 and D 484, respectively. Naphthas to be blended or marketed as motor gasoline or aviation gasoline or that are to be used as petrochemical and synthetic natural gas (SNG) feedstocks are excluded.

Steam (Purchased). Steam that is purchased for use by a refinery that was not generated from within the refinery complex.

Still Gas (Refinery Gas). Any form or mixture of gas produced in refineries by distillation, cracking, reforming, and other processes. The principal constituents are methane, ethane, ethylene, butane, butylene, propane, propylene, etc. Still gas is reported for petrochemical feedstock use and refinery fuel use.

- Petrochemical Feedstock Use—Includes all refinery streams which are used by chemical or rubber manufacturing operations for further processing, less the amount of such streams returned to the source refinery. Finished petrochemical products are not included. For example, polyethylene, butadiene, etc. are considered petrochemical products; therefore, only their feedstock equivalents are included.
- · Fuel Use-All other still gas.

Strategic Petroleum Reserve (SPR). Stocks (currently, only crude oil) maintained by the Feder Government for use during periods of major supply interruption.

Unfinished Oils. Includes all oils requiring further processing, except those requiring only mechanic blending.

Unfractionated Stream. Mixtures of unsegregated natural gas plant liquid components excludin those included in plant condensate. This product is extracted from natural gas.

Wax. A solid or semi-solid material derived from petroleum distillates or residues by such treatment as chilling, precipitating with a solvent, or de-oiling. It is a light-colored, more-or-less translucer crystalline mass, slightly greasy to the touch, consisting of a mixture of solid hydrocarbons in which th paraffin series predominates. Includes all marketable wax whether crude scale or fully refined. The three grades reported are microcrystalline, crystalline—fully refined, and crystalline—other. The conversion factor is 280 pounds per 42-gallon barrel.

• Microcrystalline Wax—Wax extracted from certain petroleum residues having a finer and les apparent crystalline structure than paraffin wax and having the following physical charateristics:

```
Penetration at 77° F. (D-1321)—60 maximum.
Viscosity at 210° F. in Saybolt Universal Seconds (SUS)
(D-88)—60 SUS (10.22 centistokes) minimum to 150
SUS (31.8 centistokes) maximum.
Oil content (D-721)—5 percent minimum.
```

• Crystalline-Fully Refined Wax—A light-colored paraffin wax having the following charateristics:

```
Viscosity at 210° F.
(D-88)—59.9 SUS (10.18 centistokes) maximum.
Oil Content (D-721)—0.5 percent maximum.
Other +20 color, Saybolt minimum.
```

 Crystalline-Other Wax—A paraffin wax having the following characteristics: Viscosity at 210° F. (D-88)—59.9 SUS (10.18 centistokes) maximum.
 Oil Content (D-721)—0.51 percent minimum to 15 percent maximum.

Western Hemisphere. That half of the earth that includes North and South America and the surrounding waters.

# Bureau of Mines Petroleum Refining Districts and PAD Districts

### PAD District

### Refining District

East Coast—District of Columbia and the States of Maine, New Hampshire, Vermont, Massachusetts, Rhode Island, Connecticut, New Jersey, Delaware, Maryland, Virginia, North Carolina, South Carolina, Georgia, Florida, and the following counties of the State of New York: Cayuga, Tompkins, Chemung and all counties east and north thereof. Also the following counties in the State of Pennsylvania: Bradford, Sullivan, Columbia, Montour, Northumberland, Dauphin, York, and all counties east thereof.

Appalachian #1—The State of West Virginia, those parts of the States of Pennsylvania and New York not included in the East Coast District.

Appalachian #2—The following counties of the State of Ohio: Erie, Huron, Crawford, Marion, Delaware, Franklin, Pickaway, Ross, Pike, Scioto, and all counties east thereof.

Indiana—Illinois—Kentucky—The States of Indiana, Illinois, Kentucky, Tennessee, Michigan, and that part of the State of Ohio not included in the Appalachian District.

Minnesota—Wisconsin—North and South Dakota—The States of Minnesota, Wisconsin, North Dakota, and South Dakota.

Oklahoma-Kansas-Missouri-The States of Oklahoma, Kansas, Missouri, Nebraska, and Iowa.

Texas Inland-The State of Texas except the Texas Gulf Coast District.

Texas Gulf Coast—The following counties of the State of Texas: Newton, Orange, Jefferson, Jasper, Tyler, Hardin, Liberty, Chambers, Polk, San Jacinto, Montgomery, Harris, Galveston, Waller, Fort Bend, Brazoria, Wharton, Matagorda, Jackson, Victoria, Calhoun, Refugio, Aransas, San Patricio, Nueces, Kleberg, Kenedy, Willacy, and Cameron.

Louisiana Gulf Coast—The following Parishes of the State of Louisiana: Vernon, Rapides, Avoyelles, Pointe Coupee, West Feliciana, East Feliciana, Saint Helena, Tangipahoa, Washington, and all Parishes south thereof. Also the following counties of the State of Mississippi: Pearl River, Stone, George, Hancock, Harrison, and Jackson. Also the following counties of the State of Alabama: Mobile and Baldwin.

North Louisiana—Arkansas—The State of Arkansas and those parts of the States of Louisiana, Mississippi, and Alabama not included in the Louisiana Gulf Coast District.

New Mexico-The State of New Mexico.

Rocky Mountain-The States of Montana, Idaho, Wyoming, Utah, and Colorado.

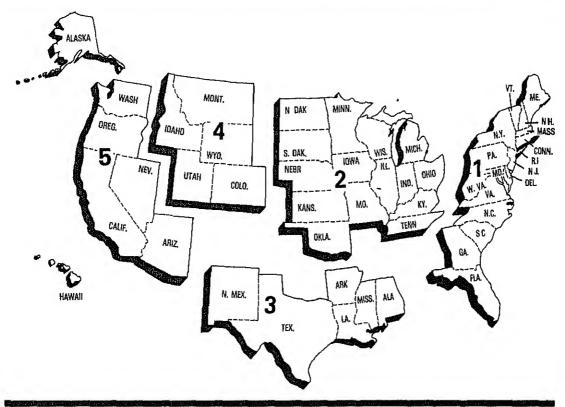
West Coast—The States of Washington, Oregon, California, Nevada, Arizona, Alaska, and Hawaii.

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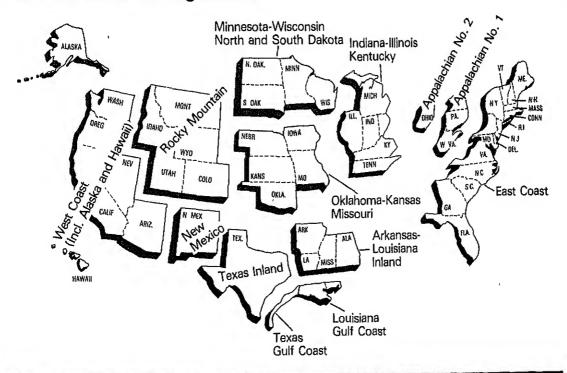
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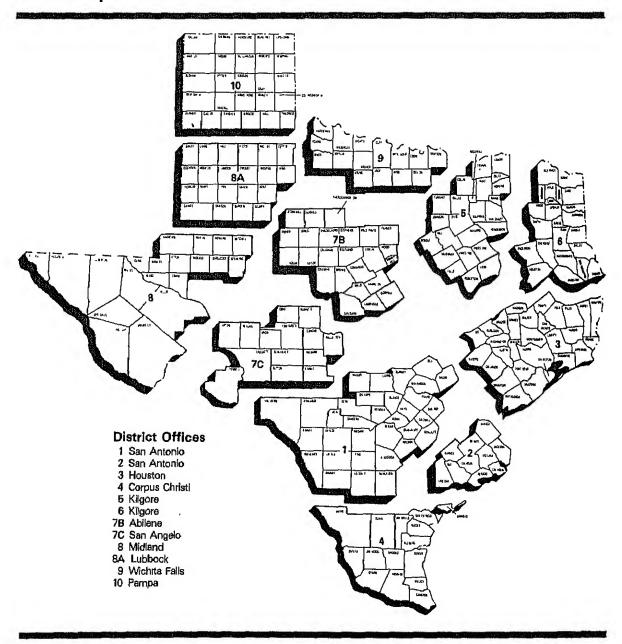
# Petroleum Administration for Defense (PAD) Districts



### **Bureau of Mines Refining Districts**



# District Map Oil and Gas Division Rallroad Commission of Texas



# Explanatory Notes

# Explanatory Notes

# Note 1.1 EIA-64: Natural Gas Liquids Operations Report

### Background

The EIA-64, "Natural Gas Liquids Operations Report" evolved from a survey designed and conducted by the United States Geological Survey beginning in 1911. This form collects data on the production and storage of natural gas plant liquids at natural gas processing plants and fractionators.

### Description of Survey

### Universe

The universe includes all operators of facilities designed to: (1) extract liquid hydrocarbons from natural gas streams (natural gas processing plants); (2) separate a combined products liquid hydrocarbon stream into its component products, i.e. propane, butane, natural gasoline, etc. (fractionators); or (3) store the liquid hydrocarbon output of plants and fractionators.

The mailing list is automated. It is maintained by matching periodically with the *LP Gas Almana* listings (including supplements) and the *Oil and Gas Journal* Processing Plant Survey listings, and by making changes reported by the respondents.

### **Information Collected**

The data are submitted monthly by facility and include all products that the company controls through possession, regardless of ownership. The main items of information collected by the EIA-64 are shown by the example of the form presented below.

### **Collection Methods**

Completed reports are required to be postmarked 20 days following the last day of the report month. Follow-up telephone calls are made to nonrespondents in order to collect data before publication of the aggregated data.

### Imputing Missing Data

Imputation is performed only for companies that submitted a report in the previous month. For such companies, previous monthly values are used for current values. The previous month's ending stocks value is used for both the current month's beginning stocks and the current month's ending stocks. The value of shipments is adjusted to balance stock level, production, receipts, plant fuel use, and losses. In the event that the previous month's data were estimated, the respondent is contacted and requested to submit estimates, if necessary, to be followed by a resubmission of actual data.

### Response Rates

The initial response rate averages 85 percent, with a final response averaging 98 percent as a result of telephone follow-up procedures.

Thata Dunancin-

ved for identification section omissions, duplicate submissions, and The data are then entered and edited. The edit program includes es, range checks for current-month to previous-month changes calculation errors, line balancing errors, etc. Telephone calls are stions.

# 89 and 90: Joint Petroleum Reporting

stem (JPRS) comprises four surveys: the "Refinery Report" (EIAort" (EIA-88); the "Pipeline Products Report" (EIA-89); and the

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Mail Station: BG-086 Forst Washington, D.C. 20585  Natural Gas Liquids Operations I This Report is Mandatroy Under Public Law 33 275. Fall may Result in Circural Fines Croll Preathets and Other Sty Law  Section 1. Natural Gas Processing Plant and Fractionator Code of Month Mouth Mouth Propane Ethane 231  Bropane 233  Brobutane 234  Brobutane Mix 241  Stocks Buttanes 235  Christ Buttanes 236  Christ Buttanes 237  Christ Gasoline 227  Christ Buttanes 238  Christ Gasoline 237  Christ Buttanes 237  Christ Buttanes 238  Christ Gasoline 237  Christ Buttanes 237  Chode of Month Buttanes 237  Christ Buttanes 237  Chris	Falue to Comply or Sanctions as Provided for Operations (Barrels of Bouring Month (b) (c)			ELA Com If Result  Storage  Facility  III	Report Date Report Date Report Date Report Date Office of Properties of Code of Properties To Refinery (g)	abon Number et Leat Day of oring Months hant Location et X in Block Plant Name Plant Name [Ih]		For DDE Use On Plant Fuel Use	— ,, , , , ,	Stocks End of Month
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"Crude Oil Stocks Report" (EIA-90). This group of forms collects data on petroleum refinery opera and on storage of crude oil and petroleum products. The origins of JPRS lie in the voluntary petro reporting systems instituted by the Bureau of Mines (BOM) soon after it was established as a parto Department of the Interior in May 1910.

### Description of Survey

### Universe

The respondent universe of each JPRS survey is defined as follows:

EIA-87: All petroleum refineries and plants producing finished motor gasoline through mechanical blending of liquids which are operated or controlled in the 50 States, the Distri Columbia, Puerto Rico, the Virgin Islands, Hawaiian Foreign Trade Zone, and Guam.

EIA-88: All bulk terminal facilities in the 50 States and the District of Columbia, Puerto Rico, an Virgin Islands that (a) have total bulk storage capacity of 50,000 barrels or more and/or (b) repetroleum products by tanker, barge, or pipeline regardless of ownership of the material.

EIA-89: All products pipeline companies that carry petroleum products (including interintrastate and intracompany pipelines) in the 50 States and the District of Columbia.

EIA-90: Crude oil pipeline companies (gathering and trunk pipeline companies), crude oil produterminal operators, storers of crude oil, and companies transporting Alaskan crude oil by wate excess of 1,000 barrels), regardless of ownership in the 50 States and the District of Columbia.

The list of respondents is kept current by checking for new respondents in the Oil and Gas Jos weekly magazine; newspaper articles; the Office of Resource Applications publication "Tren Refinery Capacity & Utilization;" the Office of Refinery Operations (ERA) list of U.S. Refiners; an annual survey EIA-177 "Capacity of Petroleum Refineries."

### **Information Collected**

The main items of information collected by EIA-87, are shown by the example presented below EIA-88 and EIA-89 collect data on petroleum product stocks. The EIA-90 collects data on crustocks and crude oil used directly as fuel.

### **Collection Methods**

The data for the JPRS surveys are collected on a monthly basis. Completed forms are required postmarked by the 20th day following the report month. Telephone follow-up calls are mannerspondents in order to collect data before publication deadline. An automated mailing I maintained and is used to monitor receipt of the forms.

### Imputing Missing Data

Imputation is performed only for companies that submitted a report in the previous month. For companies, the previous monthly values are used for current values. The previous month's ending s value is used for both the current month's beginning stocks and the current month's ending stocks value of shipments is adjusted to balance stock level, production receipts, and losses. In the event previous month's data were estimated, the respondent is contacted and requested to submit estima necessary, to be followed by a resubmission of actual data.

### Response Rates

As of the filing deadline, the response rate of the JPRS respondents is over 90 percent. All computate that have not responded are contacted by telephone. Although data are taken by telephone to experior processing, a certified submission is still required. Thirty calendar days after the report month, data companies that still fail to file the form are estimated based on prior month's data. Names of computate fail to file for two consecutive months are forwarded to DOE for further noncompliance at Final response rate is 100 percent.

Report Type	B 0 1	EIA Company Identification No.	Report Period			
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# Note 1.3 EIA-161, 162, 163, 164 and 165: Weekly Petroleum Reporting System

### Background

The Weekly Petroleum Reporting System (WPRS) comprises five surveys: the "Refinery Report" (EIA-161); the "Bulk Terminal Stocks Report" (EIA-162); the "Pipeline Product Stock Report" (EIA-163); the "Crude Oil Stocks Report" (EIA-164); and the "Imports Report" (EIA-165).

The EIA weekly reporting system was designed to collect data similar to those collected under the monthly Joint Petroleum Reporting System(JPRS) (See Note 1.2). In the WPRS, selected petroleum companies report weekly data to EIA on crude oil and petroleum product stocks, refinery inputs and production, and crude oil and petroleum product imports. On the Forms EIA-161 through EIA-164, companies report data on a custody basis. On the Form EIA-165, the importer of record reports each shipment entering the United States. Current weekly data and the most recent monthly data from the JPRS are used to estimate the published weekly totals.

### **Description of Survey**

### Universe

The sample of companies that report weekly in the WPRS was selected from the universe of companies that report monthly in either the JPRS system or the ERA-60 system (for imports). All sampled companies report data only for facilities in the 50 States and the District of Columbia.

The sampling frame for each weekly survey is defined as follows:

EIA-161: Uses the EIA-87 universe, which includes all petroleum refineries in the United States and its territories, industrial facilities that have crude oil distillation capacity and produce some refined petroleum products, and bulk terminals that blend motor gasoline.

EIA-162: Uses the EIA-88 universe, which includes all bulk terminal facilities in the Uited States and its territories that have total bulk storage capacity of 50,000 barrels or more, or that receive petroleum products by tanker, barge, or pipeline.

EIA-163: Based on the EIA-89 universe, which includes all petroleum product pipeline companies in the United States and its territories that transport refined petroleum products, including interstate, intrastate and intracompany pipeline movements. Pipeline companies that only transport natural gas liquids are not included in the EIA-163 frame. Only those pipeline companies which transport products covered in the weekly survey are included.

EIA-164: Uses the EIA-90 universe, which consists of all trunk pipeline companies in the United States and its territories which transport crude oil, all refining companies, all crude oil producers, all terminal operators, and all storers of 1,000 barrels or more of crude oil.

EIA-165: Uses the ERA-60 universe, which includes all importers of record of crude oil and petroleum products into the United States and Puerto Rico.

### Sampling

The sampling procedure used for the weekly system is the cut-off method. In the cut-off method, companies are ranked from largest to smallest on the basis of the quantities reported during some previous period. Companies are chosen for the sample beginning with the largest and adding companies until the total sample covers about 90 percent of the total for the previous time period.

### Collection Methods

Data are collected by mail, mailgram, telephone, Telex, and Telefax on a weekly basis. All canvassed firms and terminal operating companies must file by 5:00 p.m. on the Monday following the close of the report period, 7 a.m. Friday. During the processing week, company corrections of the prior week's data are also entered.

### Formula and Calculations

After the company reports have been checked and entered into the weekly data base, ratio estimates of the weekly totals are calculated from the reported data.

First, the current week's data for a given product reported by companies in that region are summed. (Call this weekly sum,  $W_s$ ) Next, the most recent month's data for the product reported by those same companies are summed. (Call this monthly sum,  $M_s$ ). Finally, let  $M_t$  be the sum of the most recent month's data for the product as reported by *all* companies. Then, the current week's ratio estimate for that product for all companies is given by.

$$W_t = \frac{M_t}{M_s} \circ W_s$$

This procedure is used directly to estimate total weekly inputs to refineries and production.

To estimate stocks of finished products, the preceding procedure is followed separately for refineries, bulk terminals, and pipelines. Total estimates are formed by summing over establishment types,

Weekly imports data are highly variable on a company-by-company basis or a week-by-week basis. Under such conditions, the ratio method is known to result in large errors. Hence, a number of other procedures for estimating weekly imports were considered. The average ratio method was selected for estimating imports because it produces estimates that were close to benchmark values computed from monthly data. Estimates are obtained using the ratio method, but with each company in turn omitte from the sample. These estimates are then averaged to obtain the average ratio estimate.

### Imputing Missing Data

The ratio method of estimation automatically imputes for nonresponse. Data from companies that do no respond are excluded from both the weekly and the monthly totals for the sampled companies.

### Response Rates

The response rate as of the day after the filing deadline is about 80 percent for the EIA-161; 75 percent for the EIA-162; 95 percent for the EIA-163; 80 percent for the EIA-164; and greater than 95 percent for the EIA-165. However, more forms are received the next day, bringing the final response rates up Late respondents are contacted by telephone. Nearly all of the major companies report on time. The nonresponse rate for the published estimates is usually between 2 percent and 5 percent.

# Note 1.4 EIA-170: Tanker and Barge Shipments of Crude O and Petroleum Products Between Districts

### Background

The EIA-170 survey collects data for calculation of monthly petroleum supply and disposition figures on U.S. and PAD District levels.

### Instrument and Design

This form is designed to collect data on total movements by tanker and barge of crude oil and petroleum products between PAD Districts or between PAD Districts and the Panama Canal, by shipping State and receiving State.

### Universe

The respondent universe of the EIA-170 consists of all known companies and plants that have custody of crude oil and petroleum products transported by tanker and barge between PAD Districts or between PAD Districts and the Panama Canal. There are currently about 60 respondents.

### Collection Methods

Survey data are collected by mail every month. The filing deadline is the 20th calendar day of the month following the report period. The response rate as of the filing deadline is about 98 percent. Late respondents are contacted by telephone. All responses are processed each month before release of the data for publication.

# Note 1.5 ERA-60: Reports of Oil Imports into the United States and Puerto Rico

### Background

The "Report of Oil Imports into the United States and Puerto Rico" (ERA-60) survey was designed by the Economic Regulatory Administration (ERA) of the Department of Energy to collect data on port of entry, country of origin, destination, and quantity of imported crude oil and petroleum products, as well as sulfur content and API gravity. All licensed importers and importers of record are required to report. The "Shipments of Refined Products from Puerto Rico to the United States" (P-133-M-O) survey was designed to collect data on imports to the United States that are not covered by the ERA-60.

### Universe

The monthly submission of Form ERA-60 and P-133-M-O is required by all licensed importers and importers of record into the United States and Puerto Rico. The respondent universe consisted of approximately 750 firms as of June 30, 1981. The respondent universe for these surveys is updated whenever an import license is granted by the Office of Oil Imports of the ERA.

### **Collection Methods**

The survey data are collected by mail each month. It is mandatory for each respondent to file the ERA-60/P-133-M-O by the 15th working day of the month following the reporting period. Resubmissions are received frequently and are processed when received.

### Response Rates

In December 1980, the survey had a response rate of 92 percent by the filing deadline. The universe was 640 at that time. (Because this is a dynamic survey, the universe is constantly changing.) Standard followup of nonrespondents is made to insure that all reports are received, since data are not imputed for nonrespondents. Response rate is generally 98-99% by the time the data are first published. Revised publications are not generated as standard operating procedure. The ERA-60 file is never closed; resubmissions are constantly received and processed.

# Note 1.6 Census Import (IM-145) and Export (EM-522 and EM-594) Tabulations

The foreign trade statistics program, conducted by the Bureau of the Census, involves compilation and dissemination of a large body of data relating to the imports and exports of the United States.

### **Import Statistics**

### Coverage

The import statistics reflect both government and nongovernment imports of merchandise from foreign countries into the U.S. Customs territory (includes the 50 States, the District of Columbia, and Puerto Rico), without regard to whether or not a commercial transaction is involved. In general, the statistics record the physical movement of merchandise into the United States from foreign countries, with the exception of the following types of transactions that are excluded from the statistics:

- 1. Merchandise shipped in transit through the United States, when documented with Customs as an intransit movement.
- 2. Shipments between the United States and Puerto Rico, the Virgin Islands, Guam, American Samoa, and other U.S. possessions; shipments between any of these outlying areas; and imports into U.S. possessions from foreign countries.
- 3. U.S. merchandise returned by U.S. Armed Forces for their own use.

### Source of Import Information

The official U.S. import statistics are compiled by the Bureau of the Census from copies of the import entry and warehouse withdrawal forms that importers are required by law to file with Customs officials (Customs Forms 7501–7505).

Imported petroleum is reported as "Imports for Consumption." Imports for consumption are a combination of entries for immediate consumption and withdrawals from warehouses for consumption. With certain exceptions as indicated above, these data generally reflect the total of commodities entered into U.S. consumption channels.

### Country and Area of Origin

The country reported in the statistics as the country of origin is defined as the country where the merchandise was grown, mined, or manufactured. In instances where the country of origin cannot be determined, the transactions are credited to the country of shipment.

### **Export Statistics**

### Coverage

The export statistics reflect both government and nongovernment exports of domestic and foreign merchandise from the U.S. Customs territory (includes the 50 States, the District of Columbia, and Puerto Rico) to foreign countries, without regard to whether or not the exportation involves a commercial transaction. In general, the statistics record the physical movement of merchandise out of the United States to foreign countries, with the exception of the following types of transactions:

- 1. Shipments between the United States and Puerto Rico, the Virgin Islands, Guam, American Samoa, and other U.S. possessions; between any of these outlying areas; and shipments from U.S. Possessions to foreign countries.
- 2. Merchandise shipped in transit through the United States from one foreign country to another, wher documented as such with U.S. Customs.
- 3. Bunker fuels and other supplies and equipment for use on departing vessels, planes, or other carrier engaged in foreign trade,

### Source of Export Information

The official U.S. export statistics are compiled by the Bureau of the Census primarily from copies of Shipper's Export Declarations. Shipper's Export Declarations are required to be filed with Customs officials, except when qualified exporters have been authorized to submit data in the form of magnetic tape, punched cards, or monthly Shipper's Summary Export Declarations directly to the Bureau of the Census.

### Country and Area of Destination

The country of destination is defined as the country of ultimate destination or the country where the goods are to be consumed, further processed, or manufactured, as known to the shipper at the time of exportation. If the shipper does not know the country of ultimate destination, the shipment is credited to the last country to which the shipper knows that the merchandise will be shipped in the same form as it was when exported.

### Collection Methods

Survey data are collected by mail every month. The filing deadline is the 20th calendar day of the month following the report period. The response rate as of the filing deadline is about 98 percent. Late respondents are contacted by telephone. All responses are processed each month before release of the data for publication.

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### Universe

The monthly submission of Form ERA-60 and P-133-M-O is required by all licensed importers and importers of record into the United States and Puerto Rico. The respondent universe consisted of approximately 750 firms as of June 30, 1981. The respondent universe for these surveys is updated whenever an import license is granted by the Office of Oil Imports of the ERA.

### **Collection Methods**

The survey data are collected by mail each month. It is mandatory for each respondent to file the ERA-60/P-133-M-O by the 15th working day of the month following the reporting period. Resubmissions are received frequently and are processed when received.

### Response Rates

In December 1980, the survey had a response rate of 92 percent by the filing deadline. The universe was 640 at that time. (Because this is a dynamic survey, the universe is constantly changing.) Standard followup of nonrespondents is made to insure that all reports are received, since data are not imputed for nonrespondents. Response rate is generally 98-99% by the time the data are first published. Revised publications are not generated as standard operating procedure. The ERA-60 file is never closed; resubmissions are constantly received and processed.

# Note 1.6 Census Import (IM-145) and Export (EM-522 and EM-594) Tabulations

The foreign trade statistics program, conducted by the Bureau of the Census, involves compilation and dissemination of a large body of data relating to the imports and exports of the United States.

### **Import Statistics**

### Coverage

The import statistics reflect both government and nongovernment imports of merchandise from foreign countries into the U.S. Customs territory (includes the 50 States, the District of Columbia, and Puerto Rico), without regard to whether or not a commercial transaction is involved. In general, the statistics record the physical movement of merchandise into the United States from foreign countries, with the exception of the following types of transactions that are excluded from the statistics:

- 1. Merchandise shipped in transit through the United States, when documented with Customs as an intransit movement.
- 2. Shipments between the United States and Puerto Rico, the Virgin Islands, Guam, American Samoa, and other U.S. possessions; shipments between any of these outlying areas; and imports into U.S. possessions from foreign countries.
- 3. U.S. merchandise returned by U.S. Armed Forces for their own use.

### Source of Import Information

The official U.S. import statistics are compiled by the Bureau of the Census from copies of the import entry and warehouse withdrawal forms that importers are required by law to file with Customs officials (Customs Forms 7501–7505).

Imported petroleum is reported as "Imports for Consumption." Imports for consumption are a combination of entries for immediate consumption and withdrawals from warehouses for consumption. With certain exceptions as indicated above, these data generally reflect the total of commodities entered into U.S. consumption channels.

### Country and Area of Origin

The country reported in the statistics as the country of origin is defined as the country where the merchandise was grown, mined, or manufactured. In instances where the country of origin cannot be determined, the transactions are credited to the country of shipment.

### **Export Statistics**

### Coverage

The export statistics reflect both government and nongovernment exports of domestic and foreign merchandise from the U.S. Customs territory (includes the 50 States, the District of Columbia, and Puerto Rico) to foreign countries, without regard to whether or not the exportation involves a commercial transaction. In general, the statistics record the physical movement of merchandise out of the United States to foreign countries, with the exception of the following types of transactions:

- 1. Shipments between the United States and Puerto Rico, the Virgin Islands, Guam, American Samoa, and other U.S. possessions; between any of these outlying areas; and shipments from U.S. Possessions to foreign countries.
- 2. Merchandise shipped in transit through the United States from one foreign country to another, when documented as such with U.S. Customs.
- 3. Bunker fuels and other supplies and equipment for use on departing vessels, planes, or other carriers engaged in foreign trade.

### Source of Export Information

The official U.S. export statistics are compiled by the Bureau of the Census primarily from copies of Shipper's Export Declarations. Shipper's Export Declarations are required to be filed with Customs officials, except when qualified exporters have been authorized to submit data in the form of magnetic tape, punched cards, or monthly Shipper's Summary Export Declarations directly to the Bureau of the Census.

### Country and Area of Destination

The country of destination is defined as the country of ultimate destination or the country where the goods are to be consumed, further processed, or manufactured, as known to the shipper at the time of exportation. If the shipper does not know the country of ultimate destination, the shipper has it credited to the last country to which the shipper knows that the merchandise will be shipped in the same form as it was when exported.

# Note 2 Estimation

The geographic coverage of all estimates is the 50 United States and the District of Columbia, including adjacent areas of the outer continental shelf, excluding the Hawaiian Foreign Trade Zone.

# Note 2.1 Supply

The components of petroleum supply are field production, refinery production, imports, stock withdrawal or addition, crude oil used directly, and losses.

Field Production is the sum of crude oil (including lease condensate) production, natural gas processing plant production, and new supply (field production) of other liquids used by refineries.

Crude oil production is estimated based on data received from State conservation and revenue agencies. Reports of crude oil production from each of the 31 producing States are not received until several months after the other components of petroleum supply described in Explanatory Note 2.1 are available for publication. For an explanation of the crude oil estimation procedure used until the State reports are complete, see Explanatory Note 2.2.

Field production of natural gas plant liquids (NGPL), including finished petroleum products, is reported monthly on survey Form EIA-64, "Natural Gas Liquids Operation Report." Negative production will occur when the amount of a product produced during the month is less than the amount of that same product that is reprocessed (input) or reclassified to become another product during the same month. For survey description and other detail, see Explanatory Note 1.1.

Field production of natural gas plant liquids (NGPL), including finished petroleum products, is reported monthly on survey Form EIA-64, "Natural Gas Liquids Operations Report." Negative production will occur when the amount of a product produced during the month is less than the amount of that same product that is reprocessed (input) or reclassified to become another product during the same month. For survey description and other detail, see Explanatory Note 1.1.

Refinery Production of LRGs, ethane, and finished petroleum products is reported monthly on survey Form EIA-87, "Refinery Report." Published production of these products equals refinery production minus refinery input. Refinery production of unfinished oils and of motor and aviation gasoline blending components appears on a net basis under refinery input. Negative production will occur when the amount of a product produced during the month is less than the amount of that same product that is reprocessed (input) or reclassified to become another product during the same month.

Refinery production is also reported weekly on survey Form EIA-161, "Refinery Report." See Explanatory Notes 1.2 and 1.3 for survey descriptions and other detail. It should also be noted that refineries do not report production of crude oil, natural gasoline, isopentane, unfractionated stream, plant condensate, or other hydrocarbons and alcohol.

Imports of crude oil and petroleum products are reported monthly on Form ERA-60, "Report of Oil Imports into the United States and Puerto Rico," and Form P-133-M-O, "Shipments of Refined Products (including unfinished oils) from Puerto Rico to the United States." In addition, the Census Bureau Tabulation IM-145 summarizes import data from Customs import declarations reported on Customs Forms 7501 and 7505. The most prominent difference between the EIA and Census systems appears in imports of liquefied petroleum gases (LPG), where Census data show a much higher level of imports than Energy Information Administration data. This occurs because the ERA-60 respondent frame was built by monitoring importers of licensed products and because LPGs are not licensed products. Therefore, respondents that only import LPGs have not been identified, and do not report these imports to the Department of Energy. Since these importers are required to file form 7501 with the U.S. Customs Service, EIA obtains data on imports of LPGs from Census Tabulation IM-145. Additional data taken from the IM-145 are relatively small quantities of naphtha and kerosene-type jet fuels, distillate fuel oils, and residual fuel oils withdrawn from bonded storage for use in international trade and for military offshore use. Even though these duty-free fuels are stored on United States shores, they did not enter the United States for domestic consumption and therefore are not included in the ERA-60 reporting system.

Imports are also reported weekly on survey Form EIA-165, "Imports Report." See Explanatory Notes 1.3, 1.5, and 1.6 for survey descriptions and other detail.

Stock Withdrawal (+) or Addition (-) is calculated by subtracting stocks at the end of the month from stocks at the beginning of the month. (Note: The beginning stocks of one month are equal to the ending stocks of the previous month.) A positive result (+) would represent a withdrawal from stocks and an increase in petroleum supplies distributed for domestic consumption. A negative result (-) would represent a buildup of stocks and reduce petroleum supplies distributed for domestic consumption. For survey forms used to make stock withdrawal or addition calculations see Explanatory Note 2.4.

Unaccounted-for Crude Oil is a balancing item that represents the difference between crude oil supply and disposition. Crude oil supply is the sum of field production, imports and stock withdrawal or addition, less crude used directly and losses. Crude oil disposition is the sum of exports and refinery input.

Unaccounted-for crude oil is calculated by subtracting crude oil supplies from crude oil disposition. A negative result indicates that refiners and exporters reported use of more crude oil than was reported to have been available to them. (This occurs, for example, when imports are undercounted due to late reporting or other problems.) A negative result would indicate that more crude oil was reported to have been supplied to refiners and exporters than they reported used. This calculation is performed for crude oil to ensure that product supplied for crude oil is always zero.

Crude Oil Used Directly and Losses is the sum of crude oil losses at refineries, crude oil burned at refineries, and crude oil burned on leases. Crude oil losses and consumption at refineries are reported on Form EIA-87, "Refinery Report." Crude oil burned on leases is reported on Form EIA-90, "Crude Oil Stocks Report." Crude oil burned on leases is divided into two categories: crude burned as residual fuel oil and crude burned as distillate fuel oil. Crude burned on leases appears as a negative supply to crude oil (a reduction in crude oil supplies) and as a positive supply to residual and distillate fuel oil (an increase to these supplies).

# Note 2.2: Domestic Crude Oil Production

Data for the Crude Oil Production System (COPS) are reported to the Department of Energy by each of the individual State conservation agencies, which collect crude oil production values for tax purposes. In addition, the U.S. Geological Survey reports the volume of crude oil that is produced offshore in Federally-owned waters. With the exception of six State conservation agencies, all of these reports are received monthly. After each calendar year, these monthly numbers are updated using the annual reports from the State conservation agencies and the U.S. Geological Survey. The six States that do not report monthly values are Indiana, New York, Ohio, Pennsylvania, West Virginia, and Wyoming. Monthly values are estimated for these States using the individual linear trends of their historical annual crude oil production values.

There is a time lag of approximately 3 to 4 months between the end of the reporting month and the time when the actual values are available for this publication. In order to provide more timely crude oil production estimates, the Department of Energy has established a series of statistical models that forecast the volume of crude oil production based on the historical production patterns. The models use Auto Regressive Integrated Moving Average (ARIMA) to analyze series of monthly crude oil production values collected over several years.

In order to provide detailed crude oil production information on both the PAD District level and for the major producing States, the total United States crude oil production volume was separated into nine distinct groupings. The nine different time series are the monthly reported crude oil production volumes for: (1) all the States in PAD District 1; (2) all the states in PAD District 2; (3) Texas; (4) Louisiana; (5) the States in PAD District 3 excluding Texas and Louisiana; (6) all the States in PAD District 4; (7) Alaska; (8) California; and (9) the States in PAD District 5 excluding Alaska and California. Monthly data collected beginning in January 1973 are used for each of these time series.

A separate ARIMA model is identified for each time series. New model parameters are estimated monthly for each of these nine updated time series. Then, these ARIMA models are used to forecast crude oil production volumes for the month of interest. These values are then aggregated into PAD District and national totals. The forecasts made during 1981 had an average error of less than 0.6 percent compared to the monthly crude oil production volumes eventually reported by the States.

# Note 2.3 Disposition

The components of petroleum disposition are refinery input, exports, and products supplied for domestic consumption.

Refinery Inputs of crude oil, NGPL and other liquids are reported monthly on survey Form EIA-87, "Refinery Report." Published inputs of unfinished oils, and motor and aviation gasoline blending components, equal refinery input minus refinery output. Refinery inputs of finished petroleum products are reported on a net basis under refinery production. Refinery inputs are also reported weekly on survey Form EIA-161, "Refinery Report." See Explanatory Notes 1.2 and 1.3 for survey description and other details.

Exports of crude oil and petroleum products are compiled from Census Bureau tabulations EM622 and EM594. Exports include crude oil shipments to Puerto Rico, the Virgin Islands, and the Hawaiian Foreign Trade Zone, which are obtained from refinery receipts reported on Form EIA-87.

Product supplied for each product is calculated by summing field production plus refinery production, plus imports, plus stock withdrawal or minus stock addition, plus crude oil used directly and losses (plus net receipts when calculated on a PAD District basis), minus refinery input, minus exports. This formula ensures that total disposition equals total supply. Products supplied indicates those quantities of petroleum products supplied for domestic consumption. Occasionally, the result for a product is negative when total disposition of that product exceeds total supply. Negative product supplied may occur for a number of reasons: (1) product reclassification has not been reported, (2) misreporting or delayed reporting of data, and (3) for calculations on a PAD District basis, incomplete coverage of interdistrict movements data compiled to calculate net receipts.

# Note 2.4 Stocks

Primary stocks of crude oil are the sum of ending stocks reported monthly on Form EIA-87, "Refinery Report," and Form EIA-90, "Crude Oil Stocks Report." Crude oil held in the Strategic Petroleum Reserve is included unless otherwise noted. Alaskan crude oil in transit is also included. Stocks of crude oil are also reported weekly on Form 161, "Refinery Report," and Form EIA-164, "Crude Oil Stocks Report." Primary stocks of petroleum products are summed from data reported on the Form EIA-64, "Natural Gas Liquids Operations Report," Form EIA-87, "Refinery Report," Form EIA-88, "Bulk Terminal Stocks Report," and Form EIA-89, "Pipeline Products Stocks Report." Primary stocks of petroleum products do not include secondary stocks held by dealers and jobbers, or stocks held by consumers. Petroleum product stocks are also reported weekly on Form EIA-161, "Refinery Report," Form EIA-162, "Bulk Terminal Stocks Report," and Form EIA-163, "Pipeline Products Stocks Report." For survey descriptions and other details see Explanatory Notes 1.1., 1.2, and 1.3.

# Note 2.5 Average Stock Levels

The graphs displaying monthly stock levels of petroleum products, crude oil, motor gasoline, distillate fuel oil, residual fuel oil, liquified petroleum gases and ethane, and other products provide the user with recent data as well as a summary of data from the most recent 3 year period from January through December or from July through June. This summary takes the form of an "average range" that includes seasonal variation determined from a longer time period. The average range represents the historical pattern; it is not a forecast.

These curves are updated every 6 months effective January 1 or July 1 by basing the "average ranges" on a more recent time period. At that time, each 3-year data series will be adjusted by dropping the first 6 months and including the most recent 6 months.

For each data series, the monthly seasonal factors were estimated by means of a seasonal adjustment technique developed at the Bureau of Census (Census X-11). The seasonal factors were assumed to be stable (i.e., unchanging from year to year) and additive (i.e., the series is deseasonalized by subtracting the seasonal factor for the appropriate month from the reported stock levels). The intent of deseasonalization is to remove only seasonal variation from the data. Thus, a deseasonalized series would contain the same trends and irregularities as the original data. For crude oil stocks, the derived seasonal factors were very small relative to crude oil stock levels. Therefore, the seasonal factors for crude oil stock levels were set to zero. The seasonal factors for total petroleum (crude and products), distillate fuel oil, residual fuel oil, liquefied petroleum gases and ethane, and other products were derived using monthly data from 1974-1980. For motor gasoline, the seasonal factors were based on monthly data from 1975, 1976, 1978, 1979 and 1980. In 1977, there was virtually no seasonal behavior in motor gasoline stocks. Monthly stock levels stayed at the same high level for the entire year. In addition, the seasonal patterns in 1973 and 1974 appeared to be different from those in recent years. It was therefore assumed that the seasonal patterns in 1973, 1974, and 1977 were not representative of the recent past, and these years were not used in the determination of seasonal patterns for motor gasoline stocks. Because of these differences in the year-to-year seasonal fluctuation of motor gasoline, the evidence for the illustrated seasonal patterns for total petroleum (crude and products), crude oil, distillate fuel oil, residual fuel oil, liquefied petroleum gases and ethane, and other products is stronger than is the evidence for the illustrated seasonal patterns for motor gasoline.

In some cases, these seasonal patterns do not show a smooth transition from month to month. For example, the June factor for residual fuel oil is slightly less than the May and July values, making a bump in the curve. As there is little difference in the magnitude of these seasonal factors, it is possible that this variation is due to the small number of observations (7 years) and the data variability.

After seasonal factors are derived, the most recent 3 year period (from January through December or from July through June) is deseasonalized. The average of the deseasonalized 36-month series determines the midpoint of the deseasonalized average band. The standard error of the deseasonalized 36 months is calculated adjusting for extreme data points. The width of the "average range" is twice this standard error.

The upper curve of the "average range" is defined as the average plus the seasonal factors plus the standard error. The lower curve is defined as the average plus the seasonal factors minus the standard error.

# Note 2.6 Movements

Movements of crude oil between PAD Districts are reported on Form EIA-170, "Tanker and Barge Report." Petroleum product movements are reported on Forms EIA-170 and EIA-89, "Pipeline Products Report." Net receipts are calculated by summing total movements into and total movements from each PAD District by pipelines, tankers, and barges, and subtracting for the difference. Movements of crude oil by pipeline are not reported. For survey descriptions and other detail, see Explanatory Notes 1.2 and 1.4.

# Note 2.7 Preliminary Monthly Statistics

Data from the Weekly Petroleum Reporting System (Forms EIA-161, 162, 163, 164 and 165) are used to estimate the most recent monthly values for the historical statistics. Since some of the weekly reporting periods overlap 2 adjacent months, it is necessary to use weighting factors in the calculation of the monthly values.

To calculate monthly estimates of crude oil and petroleum product imports, crude oil input to refineries, and production of petroleum products for a specific month, the weekly estimates are weighted by the number of days of that month included in each week, then summed.

End-of-month stock levels of crude oil and the major products (motor gasoline, distillate fuel and residual fuel) are calculated in a similar manner, but use only the two weekly reporting periods that cover the end-of-week stocks before and after the end of the month. The end-of-month stock level is calculated by first calculating the stock change between the 2 weeks. The daily stock change between the two end-of-week stock levels is then calculated. This number is multiplied by the weighting factor of earlier of the 2 weeks (the week that covers the last day of the month of interest). This change is added to the earlier of the two end-of-week stock levels to estimate the end-of-month stock level.

Preliminary monthly estimates of domestic crude oil production are calculated as described in Explanatory Note 2.2.

# Note 3 Accuracy of Petroleum Supply Data

Early in 1981, the Energy Information Administration completed an assessment of the accuracy of principal petroleum supply data series. This assessment concentrated on two methods of analysis:

- •Comparisons between EIA's final annual estimates published in the *Petroleum Statement Annual (PSA)* and annual estimates from independent sources.
- •Comparisons between EIA's final monthly estimates published in the PSA and EIA's earlier estimates published in the Monthly Petroleum Statistics Report and the Petroleum Statement, Monthly (predecessor of the Monthly Petroleum Statement).

Selected excerpts from these comparisons are presented below.

#### Comparisons of Annual Estimates

All of the systems that provide data for the Petroleum Supply Monthly, except for the weekly systems, try to collect data from the entire universe of their potential respondents. They do not sample, and have no sampling errors. Inaccuracies in the data still occur because of problems such as incomplete lists of respondents, errors in the responses, and conceptual errors in the design of the data systems. Such inaccuracies are hard to identify and even harder to quantify. Some understanding of the overall accuracy of the estimates can be achieved by comparing estimates derived from independent sources of data, as shown in the following tables. Close agreements among annual estimates from several independent sources support the conclusion that the estimates are accurate, and accuracy in the annual estimates implies accuracy in the monthly estimates that comprise the annual estimates.

#### **Crude Oil Production**

Comparisons among independent estimates of annual crude oil and lease condensate production lead to the conclusion that the PSA estimates are probably accurate to within 1 percent.

#### **Crude Oil Imports**

Comparisons among independent estimates of annual crude oil imports lead to the conclusion that the *PSA* estimates are probably accurate to within 1 percent. This conclusion is supported by a study of EIA and Customs/Census import data performed for EIA.<sup>2</sup>

#### Motor Gasoline Supplied

Comparisons among independent estimates of the annual volume of motor gasoline supplied for domestic use show that differences in the estimates grew between 1977 and 1979. By 1979, the EIA estimate of sales by refiners and the Environmental Protection Agency's estimate of production had grown about 5-7 percent larger than the comparable *PSA*, Lundberg, and American Petroleum Institute (API) estimates. Research conducted by EIA in 1979 and 1980s confirmed that the lower

<sup>&</sup>lt;sup>1</sup>An Assessment of the Accuracy of Principal Data Series of the Energy Information Administration, DOE/EIA-0292, June 1981.

<sup>&</sup>lt;sup>2</sup>Maxima Corporation, Petroleum Imports Reporting Systems, Preliminary Draft, (Silver Spring, Maryland: February 1980), Prepared for the Office of Energy Information Validation, Energy Information Administration, U.S. Department of Energy, Washington, D.C.

<sup>&</sup>lt;sup>3</sup>Office of Energy Information Validation, Energy Information Administration, U.S. Department of Energy, An Evaluation of Published EIA Gasoline Supply Estimates (Washington, D.C.: April 1980).

estimates were inaccurate, and identified changes in the petroleum industry that had an adverse effect on the PSA estimate. During 1980, EIA developed and tested improved procedures for collecting petroleum supply data, and implemented them in January 1981. (See Explanatory Note 4.)

## Distillate Fuel Oil Supplied

Comparisons among independent estimates of the annual volume of distillate fuel oil supplied for domestic use lead to the conclusion that the *PSA* estimates are probably accurate to within 1 to 2 percent.

#### Residual Fuel Oil Supplied

Comparisons among independent estimates of the annual volume of residual fuel oil supplied for domestic use seem to show sizable and consistent differences between the EIA estimates of sales by refiners and the PSA and API estimates. When imports of residual fuel oil by nonrefiners are added to the refiner sales, however, the difference between refiner sales and the PSA estimates are narrowed to within 1 percent. The comparisons therefore lead to the conclusion that the PSA estimates are probably accurate to within 1 to 2 percent.

# Comparison of Estimates of the Volume of Crude Oil and Lease Condensate Production, 1977-1979

	Estimated Volume of Production in Millions of 42-U.S. Gallon Barrels <sup>a</sup>			Comparative Estimate as Percent of the PSA Estimate		
	1979	1978	1977	1979	1978	1977
EIA Estimate from Petroleum Statement Annual b	3,121	8,178	3,009	///	///	///
Comparative Estimates						
American Petroleum Institute Estimate from API Monthly Statistical Report <sup>o</sup>	3,130	8,214	3,021	100.8%	101.1%	100.4%
Census Estimate from the Annual Survey of Oil and Gas <sup>d</sup>		3,148	3,016		99.1%	100.2%
Oil and Gas Journal Estimates of Total Production derived from Monthly Data	3,168	3,165	3,005	101.5%	99.6%	99.9%
EIA Estimate from Annual Survey of Oil and Gas Reserves (EIA-28) <sup>f</sup>	3,102	3,144	3,001	99.4%	98.9%	99.7%

<sup>/// =</sup> Not applicable
-- = Not available

<sup>\*</sup>Volumes are rounded to the nearest million barrels.

bFrom Table 6 in EIA's Petroleum Statement Annual, 1977, 1978, 1979.

<sup>&</sup>lt;sup>c</sup>From issues of the American Petroleum Institute's *Monthly Statistical Report.* The annual values were obtained by summing the monthly values for each of the twelve-month periods.

dFrom Table 1, p.2 of the Bureau of Census' Annual Survey of Oil and Gas, 1978.

From issues of the Oil and Gas Journal. Monthly estimates are in thousands of barrels per day. They are converted to millions of barrels by dividing by 1,000 and multiplying by the number of days in the reporting period.

From EIA's U.S. Crude Oil and Natural Gas Reserves 1979 Annual Report (Table 19, p. 33), 1978 Annual Report (Table 16, p. 20), and 1977 Annual Report (Table 22, p.36).

Geographic coverage; the 50 United States and District of Columbia with adjacent areas of the Outer Continental shelf.

SOURCE: An Assessment of the Accuracy of Principal Data Series of the Energy Information Administration, DOE/EIA-0292.

## Comparison of Estimates of the Volume of Crude Oil Imports, 1977-1979

	Volume of Millions of 42-U.S. Gallon Barrels <sup>a</sup>			Comparative Estimates a a Percent of the Primary Estimate		
	1979	1978	1977	1979	1978	1977
EIA Estimate of Receipts at Ports of Entry (ERA-60) from Petroleum Statement, Annual <sup>b</sup>	2,380	2,320	2,414	///	///	///
Comparative Estimates						
American Petroleum Institute Estimate of Receipts as Reported by Refiners°	2,346	2,323	2,360	98.6%	100.1%	97.8%
Customs/Census Estimate of Receipts at Ports of Entry (Customs Forms 7501 and 7502) <sup>d</sup>	2,415	2,338	2,431	101.5%	100.8%	100.7%
EIA Estimate of Inputs of Foreign Crude at Refineries (ETA-87)e	2,364	2,334	2,431	99.3%	100.6%	100.7%

<sup>/// =</sup> Not applicable

<sup>\*</sup>Volumes are rounded to the nearest million barrels.

From Table 1 in EIA's Petroleum Statement Annual 1977, 1978, 1979. This table also includes imports for the Strategic Petroleum Reserve (SPR) which were 7.5 million in 1977, 58.8 million in 1978, and 24.4 million in 1979.

Estimate equals the sum of the annual estimate of imports derived from API's Monthly Statistics Report (which excludes imports for SPR), and the EIA estimates for imports for the SPR which are listed in footnote b above. The annual estimates from API data are equal to the sum of the API monthly estimates weighted by the number of days in each month.

Data on imports to Puerto Rico which are included in the source for these estimates have been excluded from these estimates in keeping with the geographic coverage of the table. Data are from computer printouts of the Bureau of Census Report IM-245-X dated April 3, 1980 (1977 and 1978 data) and December 19, 1980 (1979 data).

Estimate equals refinery inputs of foreign crude plus (minus) stock increases (decreases) of foreign crude. The data for the computation are published in EIA's Petroleum Statement, Annuals. The stock changes (all increases) are derived from data on stocks of crude oil at refineries, bulk terminals, and pipelines as reported on Form EIA-90, plus the increase in the SPR. This estimate excludes crude oil imported and not used as refinery input.

Geographic coverage: the 50 United States and the District of Columbia.

SOURCE: An Assessment of the Accuracy of Principal Data Series of the Energy Information Administration, DOE/EIA-0292.

## Comparison of Estimates of the Volume of Motor Gasoline Supplied for Domestic Use. 1977-1979

	Volume in Millions of 42-U.S. Gallon Barrels*			Volume Supplied as a Percent of the PSA Estimate		
	1979	1978	1977	1979	1978	1977
EIA Estimate from Petroleum Statement, Annual <sup>b</sup>	2,573	2,711	2,625	///	///	111
Comparative Estimates				7,1	,	,
EIA Estimate of Sales by Refiners (P-306)°	2,708	2,792	2,671	105.2%	103.0%	101.8%
Environmental Protection Agency Estimate derived from Production Data <sup>d</sup>	2,766	2,851	2,706	107.5%	105.2%	103.1%
Lundberg Surveys, Inc. Estimate of U.S. Motor Gasoline Sales <sup>e</sup>	2,631	2,746	رز 2,656	102.3%	101.3%	101.2%
American Petroleum Institute Estimate of Deliveries	2,579	2,697	2,612	100,2%	99.5%	99.5%

<sup>/// =</sup> Not applicable

Geographic coverage: the 50 United States and the District of Columbia.

SOURCE: An Assessment of the Accuracy of Principal Data Series of the Energy Information Administration, DOE/EIA-0292.

# Comparison of Estimates of the Volume of Distillate Fuel Oil (Including Kerosene) Supplied for Domestic Use, 1977-1979

	Volum 42-U.S.	ne in Milli Gallon B	ons of arrels*	Volume Supplied as a Percent of the PSA Estimate		
	1979	1978	1977	1979	1978	1977
EIA Estimate from Petroleum Statement Annual <sup>b</sup>	1,269	1,307	1,275	///	///	///
Comparative Estimates						
EIA Estimate of Sales by Refiners (P-306)°	1,282	1,275	1,242	101.0%	97.6%	97.4%
American Petroleum Institute Estimate of Deliveries <sup>d</sup>	1,291	1,300	1,277	101.7%	99.5%	100.2%

<sup>/// =</sup> Not applicable

Geographic coverage: the 50 United States and the District of Columbia.

SOURCE: An Assessment of the Accuracy of Principal Data Series of the Energy Information Administration, DOE/EIA-0292.

<sup>&</sup>quot;Volumes are rounded to the nearest million 42-U.S. gallon barrels,

<sup>&</sup>lt;sup>b</sup>Derived from Table 2 in EIA's Petroleum Statement Annual, 1977, 1978, 1979.

Derived from Table 1 of EIA's December issue of Petroleum Market Shares, Report on Sales of Refined Petroleum Products 1977, 1978, 1979.

<sup>&</sup>lt;sup>d</sup>The estimate shown is derived by substituting EIA Domestic Production values with values of domestic production tabulated from the Environmental Protection Agency Bq. Form 3520-2, "Lead Additive Report for Refineries." The EPA production estimates are 2,694 million barrels in 1977, 2,757 in 1978, and 2,648 in 1979 as compared from a summary sheet provided by Mr. Bob Summerhayes of EPA.

From the mid-June issues of the "National Petroleum News," 1979 and 1980.

API publishes monthly estimates in thousands of barrels per month of the volume of motor gasoline delivered from primary storage. The initial published monthly estimate is derived from API sources, but in later API publications the estimates are revised using EIA data. The values shown in the table are equal to the sums of the initial published API monthly estimates of motor gasoline multiplied by the number of days per month.

aVolumes are rounded to the nearest million 42-U.S. gallon barrels,

<sup>&</sup>lt;sup>b</sup>Derived from Table 2 in EIA's "Petroleum Statement Annual", 1977, 1978, 1979.

<sup>&</sup>lt;sup>c</sup>Derived from Table 1 of EIA's December issue of Petroleum Market Shares, Report on Sales of Refined Petroleum Products, 1977, 1978, 1979.

dAPI publishes monthly estimates in thousands of barrels per month of the volume of distillate and kerosene delivered from primary storage. The initial published monthly estimate is derived from API sources, but in later API publications the estimates are revised using EIA data. The values shown in the table are equal to the sums of the initial published API monthly estimates of distillate and kerosene multiplied by the number of days per month.

Comparison of Estimates of the Volume of Residual Fuel Oil Supplied for Domestic Use, 1977-1979.

	Volur 42-U.S	ne in Milli , Gallon B	ons of arrels <sup>a</sup>	Volume Supplied as a Percent of the PSA Estimates		
	1979	1978	1977	1979	1978	1977
EIA Estimate from $Petroleum$ $Statement$ , $Annual^b$	1,024	1,095	1,109	///	///	///
Comparative Estimates						
EIA Estimate of Sales by Refiners (P-306) <sup>c</sup>	796	832	847	80.8%	79.6%	80.1%
American Petroleum Institute Estimate of Deliveries <sup>d</sup>	1,044	1,101	1,114	102.0%	100.5%	100.4%

<sup>/// =</sup> Not Applicable

Geographic Coverage: the 50 United States and the District of Columbia.

SOURCE: An Assessment of the Accuracy of Principal Data Series of the Energy Information Administration, DOE/EIA-0292.

## Comparisons of Monthly Estimates Over Time

Inaccuracies in petroleum data resulting from incomplete or delayed reports from respondents and from data processing errors are usually eliminated from the final PSA estimates. Such inaccuracies can still have important effects on the monthly estimates published in the Petroleum Supply Monthly and its predecessors. The following tables compare the initial monthly estimates published in the Monthly Petroleum Statistics Report and the Petroleum Statement, Monthly with the final monthly estimates published in the PSA. During 1977–1979, the Monthly Petroleum Statistics Report was published about 60 days after the end of the reporting month, and the Petroleum Statement, Monthly was published about 120-150 days after the end of the reporting month. The tables show that, both in terms of bias and in terms of standard deviation, the later estimates are consistently more accurate than the earlier estimates. In spite of this, the earlier estimates may have been more valuable to users of energy information because of the large difference in timeliness.

For purposes of comparison, the Petroleum Supply Monthly is scheduled to be published on about the same time lag as the Monthly Petroleum Statistics Report. Caution should be exercised, however, in drawing conclusions from this similarity. The Petroleum Supply Monthly uses improved data processing procedures developed and successfully implemented during 1981. In addition, since 1979, EIA has greatly improved the accuracy of its 60-day crude oil production estimates and is making progress in improving the accuracy of its 60-day import estimates.

<sup>\*</sup>Volumes are rounded to the nearest million 42-U.S. gallon barrels.

<sup>&</sup>lt;sup>b</sup>Derived From Table 2 in EIA's *Petroleum Statement Annual*, 1977, 1978, 1979. Refinery fuel use, subtracted from the figures in the source referenced below, has been reinstated in these estimates.

<sup>\*</sup>Derived from Table 1 of EIA's December issue of Petroleum Market Shares, Report on Sales of Refined Petroleum Products, 1977, 1978, 1979.

<sup>&</sup>lt;sup>d</sup>API publishes monthly estimates in thousands of barrels per month of the volume of residual fuel oil delivered from primary storage. The initial published monthly estimate is derived from API sources, but in later API publications the estimates are revised using EIA data. The values shown in the table are equal to the sums of the initial published API monthly estimates of residual fuel oil multiplied by the number of days per month.

Initial Monthly Estimates of Production, Stocks, and Imports of Crude Oil As A Percent of EIA's Final Published Estimates a January 1977 – December 1979

	Production During Month		Primary Stocks At End of Month		Imports During Month	
	Mean Percent	Standard Deviation	Mean Percent	Standard Deviation	Mean	Standard Deviation
EIA's Estimates from the Monthly Petroleum Statistics Report <sup>b</sup>	# 98.7%	1.6%	# 98.3%	1,4%	# 95.4%	2.4%
EIA's Estimates from the Petroleum Statement, Monthly	# 99.6%	0.6%	100.0%	0.1%	# 98.4%	1.3%

Initial Monthly Estimates of Products Supplied for Domestic Use as A Percent of EIA's Final Published Estimates <sup>a</sup> January 1977 - December 1979

	Motor Gasoline		Distillate Fuel Oil		Residual Fuel Oil	
	Mean Percent	Standard Deviation	Mean Percent	Standard Deviation	Mean Percent	Standard Deviation
EIA's Estimates from the Monthly Petroleum Statistics Report <sup>b</sup>	99.9%	1.3%	99.9%	2.3%	# 97.9%	2.7%
EIA's Estimates from the Petroleum Statement, Monthly	100.0%	0.3%	99.7%	0.5%	99.4%	1.2%

Initial Monthly Estimates of End-of-Month Primary Stocks As a Percent of EIA's Final Published Estimates \*
January 1977 - December 1979

	Motor Gasoline		Distillate	e Fuel Oil	Residual Fuel Oil	
EIA's Estimates from the	Mean Percent	Standard Deviation	Mean Percent	Standard Deviation	Mean Percent	Standard Deviation
Monthly Petroleum Statistics Report	99.7%	0.8%	99.7%	1.1%	100.1%	0.7%
EIA's Estimates from the Petroleum Statement, Monthly	99.9%	0.2%	100.0%	0.1%	100.1%	0.6%

<sup>#</sup> Represents a difference from 100% found to be statistically significant at the 95% level of confidence (n = 36).

<sup>&</sup>quot;Final monthly estimates are from the "Petroleum Statement, Annual" for 1977, 1978 and 1979. The mean percent is calculated as follows: each preliminary estimate is first expressed as a percent of EIA's final published estimate, these are then summed and the sum is divided by the number of estimates. The standard deviation is the square root of the quantity computed by summing the squared deviation of the percents from the mean percent and then dividing by the number of percents.

<sup>&</sup>lt;sup>b</sup>Based on 36 initial estimates appearing in issues dated January 1977 - December 1979.

Based on 36 initial estimates appearing in issues dated January 1977 - December 1979.

SOURCE: An Assessment of the Accuracy of Principal Data Series of the Energy Information Administration DOE/EIA-0292.

# Note 4 Changes in Petroleum Industry Reporting

Petroleum statistics contained in this report for all years through 1980 were developed using definitions, concepts, reporting procedures and aggregation methods that are consistent with those developed by the U.S. Bureau of Mines. Research conducted by the Energy Information Administration in 1979 and 1980 indicated that changes had occurred in the petroleum industry that were not being adequately reflected in EIA's reporting systems.

EIA reporting forms, definitions, and procedures were modified beginning in January 1981 to describe industry operations more accurately. Unfortunately, empirical information is not available to precisely measure the data shortcomings throughout 1980. However, estimates of the magnitudes of differences in the major data series are described below to form a basis for comparing 1979, 1980, and 1981 data.

#### Motor Gasoline

Prior to 1979, the EIA product-supplied series for motor gasoline was consistently about 2 percent lower than the Federal Highway Administration (FHWA) gasoline-sales data series, which is derived from State tax receipts. This difference increased to about 4 percent in 1979 and 5 percent in 1980. There are two primary causes for this growing difference. First, refinery operations, particularly the flows of unfinished oils and the redesignation of some finished products, were not being accurately described on the EIA survey forms. Second, a large amount of gasoline was being produced away from refineries at "downstream blending stations" to take advantage of provisions in regulations governing the amount of lead that could be added. These blending stations were not reporting gasoline production to the EIA until the data system was changed in January 1981.

Quantitative estimates of the magnitude of the difference—in EIA's gasoline product supplied data in 1979 and 1980 have been made by the EIA and the American Petroleum Institute (API). The following table provides 1979 and 1980 data as published in the Petroleum Statement Annual, as well as EIA and API estimates of "recast" motor gasoline product supplied. EIA recast estimates were based upon preliminary monthly information in the Monthly Petroleum Statement. The ranges displayed in the EIA column reflect uncertainty in the estimates. Also shown are the FHWA motor gasoline sales statistics for those years. EIA has recently published a study of the quality of these FHWA data.

<sup>&</sup>lt;sup>1</sup>Office of Energy Information Validation, Energy Information Administration, U.S. Department of Energy, Error Profile of the Motor Fuel Taxation Data used to Establish and Monitor State Emergency Conservation Targets (Washington, D.C.: December, 1981).

		19	79		1980				
	EIA Reported	API Recast	EIA Recast	FHWA	EIA Reported	API Recast	EIA Recast	FHWA	
Jan	6,830	7,230	7,084- 7,246	6,984	6,323	6,789	6,630- 6,791	6,672	
Feb	7,254	7,496	7,389- 7,568	7,538	6,596	6,983	6,831- 7,003	6,830	
Mar	7,229	7,414	7,301- 7,463	7,316	6,406	6,753	6,607- 6,768	6,713	
Apr	7,055	7,300	7,187- 7,353	7,375	6,800	7,014	6,886- 7,052	6,981	
May	7,213	7,429	7,313- 7,475	7,428	6,729	6,954	6,823- 6,984	7,044	
Jun	7,191	7,483	7,350- 7,516	7,441	6,657	6,966	6,824- 6,991	7,049	
Jul	6,902	7,241	7,105- 7,266	7,299	6,743	6,973	6,960	7,132	
Aug	7,330	7,546	7,426- 7,588	7,619	6,648	6,841	6,828	7,090	
Sep	6,881	7,122	7,016- 7,262	7,232	6,510	6,692	6,962	6,685	
Nov	6,791	7,068	6,956- 7,122	7,142	6,234	6,507	6,516	6,951	
Dec	6,730	7,106	6,966- 7,127	7,064	6,632	6,948	6,936	6,993	
Average	7,034	7,302	7,183- 7,347	7,309	6,579	6,882	6,806- 6,889	6,925	

<sup>1</sup>FHWA gasoline statistics published in their 1979 Table MF-33G, 08-06-80, contain aviation gasoline as well as motor gasoline. Only motor gasoline data are included in published 1980 data. Consequently, the 1979 data shown above were reduced by subtracting aviation gasoline product supplied quantities as published by EIA in the 1979 Petroleum Statement Annual. The 1980 FHWA data published in their 1980 Table MF-33GA, August 1981, did not require this adjustment.

#### Distillate and Residual Fuel Oil

Distillate and residual fuel oil refinery production statistics through 1980 were adjusted to account for an imbalance between unfinished oil supply and disposition. The reported quantities of refinery inputs of unfinished oils typically exceed the available supply of unfinished oils. It has been assumed that this occurs when distillate and residual fuel oil produced by a refinery is shipped to another refinery, where it is treated as unfinished oil. This oil is then reprocessed rather than used or sold as distillate or residual fuel oil.

For many years (including 1980), the difference between unfinished oil disposition and supply was subtracted from distillate and residual fuel oil production to adjust for this discrepancy. Two-thirds of the difference was applied to distillate, and one-third to residual fuel oil.

Beginning in January 1981 this adjustment was discontinued because there was not sufficient empirical evidence to support it. The following table presents distillate and residual fuel oil refinery production in 1980 as published (adjusted) and on the same basis as 1981 statistics are now being completed (unadjusted) to permit comparison between 1980 and 1981 data series. Adjusted distillate and residual fuel oil product supplied volumes differ from the unadjusted volumes by the same amounts as the adjusted and unadjusted production volumes.

Adjusted and Unadjusted Refinery Production, and Unadjusted Product Supplied of Distillate and Residual Fuel Oils, by Month for 1979 and 1980 (Thousand Barrels Per Day)

1979

		Distillate	Fuel Oil		Residual Fuel Oil					
Month	Adj. Ref. Prod.	Unadj. Ref. Prod.	Diff.	Unadj. Product Supplied	Adj. Ref. Prod.	Unadj. Ref. Prod.	Diff.	Unadj. Product Supplied		
Jan.	3,043	3,108	65	4,646	1,912	1,946	34	8,594		
Feb.	2,888	2,945	57	4,869	1,792	1,822	30	3,625		
Mar.	3,019	3,026	7	3,671	1,719	1,723	4	3,248		
Apr.	2,945	2,978	32	3,048	1,639	1,656	17	2,524		
May	3,066	3,093	27	3,025	1,586	1,600	14	2,517		
Jun.	3,153	3,187	35	2,743	1,548	1,566	18	2,601		
Jul.	3,305	3,344	38	2,601	1,575	1,594	20	2,471		
Aug.	3,321	3,359	38	2,799	1,584	1,603	20	2,570		
Sep.	3,354	3,306	-48	2,599	1,627	1,602	-25	2,584		
Oct.	3,251	3,217	-34	3,085	1,629	1,612	-17	2,523		
Nov.	3,239	3,200	-39	3,208	1,736	1,716	-20	2,795		
Dec.	3,221	3,238	17	8,725	1,894	1,903	9	3,022		
Average	3,152	3,169	16	3,327	1,687	1,695	8	2,834		

#### 1980

		Distillate	Fuel Oil		Residual Fuel Oil				
Month	Adj. Ref. Prod.	Unadj. Ref. Prod.	Diff.	Unadj. Product Supplied	Adj. Ref. Prod.	Unadj. Ref. Prod.	Diff.	Unadj. Product Supplied	
Jan.	3,013	3,093	80	3,794	1,771	1,812	41	3,108	
Feb.	2,766	2,888	122	3,834	1,773	1.836	63	8,168	
Mar.	2,557	2,690	133	3,312	1,584	1,652	68	2,726	
Apr.	2,460	2,554	94	2,729	1,595	1,643	48	2,492	
May	2,474	2,610	136	2,538	1,509	1,579	70	2,305	
Jun.	2,646	2,721	75	2,392	1,575	1,613	38	2,359	
Jul.	2,689	2,783	94	2,343	1,480	1,528	48	2,339	
Aug.	2,461	2,582	121	2,258	1,444	1,506	62	2,348	
Sep.	2,686	2,726	40	2,627	1,495	1,516	21	2,380	
Oct.	2,589	2,650	61	2,981	1,512	1,543	31	2,258	
Nov.	2,703	2,823	120	3,069	1,579	1,641	62	2,513	
Dec.	2,891	3,052	161	3,776	1,660	1,743	83	2,762	
Average	2,661	2,764	103	2,969	1,580	1,634	54	2,562	

#### **Total Petroleum Products**

The imbalance between the supply and disposition of unfinished oils is now reported as part of the reclassified products (line 39) in the U.S. Petroleum Balance (Table 1). Imbalances between the supply and disposition of gasoline blending components comprise the remainder of the reclassified in Table 1. These imbalances are reported as negative product supplied in the Other Liquids section of the table of Supply and Disposition Statistics (Table 2). Since these changes only involve redistribution of the volumes of gasoline, distillate and residual fuel oil, gasoline blending components, and unfinished oils, the total volume of petroleum products supplied remains unaffected by them.

## Note 5 Notes on Tables

- 5.1 Crude Oil and Petroleum Products Overview statistics on the referenced line appear in Table 4 of the Detailed Statistics, except where noted.
- Crude Oil and Petroleum Products Stock Withdrawal (+) or Addition (-), Petroleum Products Supplied, Total Imports, Crude Oil Imports, Total Exports, and Crude Oil Exports appear as labeled in Table 4. Total Production and Crude Oil Production appear under Field Production in Table 4.
- Natural Gas Plant Production is the sum of Natural Gas Plant Liquids and Finished Petroleum Products Field Production in Table 4.
- Petroleum Products Imports is the sum of Natural Gas Plant Liquids and LRGs, Other Liquids, and Finished Petroleum Products Imports in Table 4.
- Petroleum Products Exports is the sum of Natural Gas Plant Liquids and LRGs, Other Liquids, and Finished Petroleum Products Exports in Table 4.
- Total Crude Oil and Petroleum Products Ending Stocks appear in thousands of barrels in Table 2.
- 5.2 Crude Oil Supply and Disposition statistics on the referenced line appear in Table 1 of the Detailed Statistics, except where noted.
- Total Domestic Field Production, Alaskan Field Production, SPR Imports, Other Imports (synonymous with Imports Gross Excl. SPR), SPR and Other Primary Stocks Withdrawal (+) or Addition (-), Unaccounted For Crude Oil, Refinery Inputs, and Exports appear as labeled in Table 1.
- SPR Ending Stocks and Other Primary Ending Stocks (synonymous with stocks excluding SPR) appear in thousands of barrels in Table 1.
- Total Crude Oil Ending Stocks appear in thousands of barrels in Table 2.
- Total Imports appear in Table 4.
- 5.3 Finished Motor Gasoline Supply and Disposition statistics on the referenced line appear in Table 4 of the Detailed Statistics, except where noted.
- Total Production is the sum of Field Production and Refinery Production in Table 4.
- Imports, Stock Withdrawal (+) or Addition (-), Exports, and Product Supplied appear as labeled in Table 4.
- Unleaded Percent of Total Product Supplied represents the ratio of finished unleaded motor gasoline product supplied to total finished motor gasoline product supplied, multiplied by 100 and rounded to the nearest tenth.
- Ending Stocks appear in thousands of barrels in Table 2.
- 5.4 Distillate and Residual Fuel Oil Supply and Disposition statistics on the referenced lines appea in Table 4 of the Detailed Statistics, except where noted.
- Total Production is the sum of Field Production and Refinery Production in Table 4.
- Imports, Stock Withdrawal (+) or Addition (-), Crude Used Directly, Exports, and Product Supplied appear as labeled in Table 4.
- · Ending Stocks appear in thousands of barrels in Table 2.
- 5.5 Liquefied Petroleum Gases and Ethane statistics represent the aggregation of statistics on ethane, propane, butane, butane-propane mixtures, ethane-propane mixtures, and isobutane. The statistics on the referenced line appear in Table 4 of the Detailed Statistics, except where noted.

- Total Production is the sum of Field Production and Refinery Production in Table 4.
- Imports, Stock Withdrawal (+) or Addition (-), Refinery Inputs, Exports, and Product Supplied appear as labeled in Table 4.
- Ending stocks appear in thousands of barrels in Table 2.
- 5.6 Other Petroleum Products Supply and Disposition statistics represent the aggregation of statistics on natural gasoline, isopentane, unfractionated stream, plant condensate, other liquids, and all finished petroleum products except finished motor gasoline, distillate fuel oil, and residual fuel oil. The statistics on the referenced line are aggregated from Table 4 of the Detailed Statistics, except where noted.
- Total Production is the aggregated sum of Field Production and Refinery Production in Table 4.
- Imports, Stock Withdrawal (+) or Addition (-), Refinery Inputs, Exports, and Product Supplied are aggregated from Table 4.
- Ending stocks are aggregated from ending stocks in thousands of barrels in Table 2.

#### Note 5.7 Table 1. U.S. Petroleum Balance

- Lines (1) through (3) of Table 1: Crude oil (including lease condensate) production for "Alaska," "Lower 48 States," and "Total U.S." are calculated by calling the conservation agency in Alaska for Alaskan crude oil production during the month, estimating crude oil production in the United States (see Explanatory Note 2.2), and taking the difference to equal production in the lower 48 states.
- Line (5) of Table 1: SPR imports are reported on Survey Form ERA-60.
- Line (12) of Table 1: "Total Other Sources" equals crude oil stock withdrawal (+) or addition (-) plus unaccounted for crude oil plus crude used as fuel and losses in Table 2.
- Line (14) of Table 1: Natural gas plant liquids (NGPL) "Production" equals field production of natural gas plant liquids (NGPL) plus field production of finished petroleum products in Table 2.
- Line (15) of Table 1: NGPL "Imports" equals the sum of the imports of natural gasoline and isopentane, unfractionated stream, and plant condensate imports in Table 2.
- Line (16) of Table 1: NGPL "Stock Withdrawal (+) or Addition (-)" is equal to the sum of stock withdrawal (+) or addition (-) of natural gasoline and isopentane, unfractionated stream, and plant condensate in Table 2.
- Line (17) of Table 1 equals the sum of lines (14), (15), and (16) of Table 1.
- Line (18) of Table 1: unfinished oils and gasoline blending components "Stock Withdrawal (+) or Addition (-)" equals stock withdrawal (+) or addition (-) for other hydrocarbons and alcohol, for unfinished oils, motor gasoline blending components, and aviation gasoline blending components.
- Line (20) of Table 1: "Other Hydrocarbons and Alcohol New Supply" equals the field production of same in Table 2.
- Line (21) on Table 1: "Refinery Processing Gain" is a balancing item equal to total refinery production minus total refinery input in Table 2.
- Line (22) on Table 1: "Crude Used Directly" equals the sum of crude oil used directly as distillate and residual fuel oils in Table 2.
- Line (23) of Table 1: "Total Other Liquids" equals the sum of lines (18) through (22) of Table 1.
- Line (24) of Table 1: "Total Production of Products" equals crude oil input to refineries plus field production of NGPL and finished petroleum products; plus imports of natural gasoline and isopentane, unfractionated stream, and plant condensate; plus stock withdrawal (+) or addition (-) of natural gasoline and isopentane, unfractionated stream, and plant condensate; plus stock withdrawal (+) or

addition (-) of other hydrocarbons and alcohol, unfinished oils, aviation gasoline blending components, and motor gasoline blending components; plus imports of unfinished oils, aviation gasoline blending components, and motor gasoline blending components; plus field production of other hydrocarbons and alcohol; plus total refinery production; minus total refinery input; plus crude oil used as distillate and residual fuel oils in Table 2.

- Line (25) of Table 1: "Gross Imports of Refined Products" equals imports of LPG and ethane plus imports of finished petroleum products in Table 2.
- Line (26) of Table 1: "Exports of Refined Products" equals exports of LPG and ethane plus exports of finished petroleum products in Table 2.
- Line (27) of Table 1: "Net Imports of Refined Products" equals the difference between lines (25) and (26) of Table (1).
- Line (28) of Table 1: "Total New Supply of Products" equals crude oil input to refineries plus field production of NGPL and finished petroleum products; plus imports of natural gasoline and isopentane, unfractionated stream, and plant condensate; plus stock withdrawal (+) or addition (-) of natural gasoline and isopentane, unfractionated stream, and plant condensate; plus stock withdrawal (+) or addition (-) of other hydrocarbons and alcohol, unfinished oils, aviation gasoline blending components, and motor gasoline blending components; plus imports of unfinished oils, aviation gasoline blending components, and motor gasoline blending components; plus field production of other hydrocarbons and alcohol; plus total refinery production; minus total refinery input; plus crude oil used as distillate and residual fuel oils; plus imports of LPG and ethane and finished petroleum products; minus exports of LPG and ethane and finished petroleum products; minus exports of LPG and ethane and finished petroleum products in Table 2.
- Line (29) of Table 1: "Refined Products Stocks Withdrawal (+) or Addition (-) equals the sum of stock withdrawal (+) or addition (-) for LPG and ethane, and finished petroleum products in Table 2.
- Line (30) of Table 1: "Total Petroleum Products Supplied for Domestic Use" equals total products supplied in Table 2.
- Lines (31) through (37) of Table 1 equal the respective products supplied in Table 2.
- Line (38) of Table 1: "Other Products Supplied" equals the sum of natural gasoline and isopentane, unfractionated stream, plant condensate, aviation gasoline, naphtha < 400 Deg. F for petrochemical feedstock uses, other oils > 400 Deg. F. for petrochemical feedstock use, special naphthas, lubricants, waxes, coke, asphalt, road oil, still gas, and miscellaneous products supplied in Table 2.
- Line (39) of Table 1: "Total Reclassified" is a balancing item equal to the sum of unfinished oils, motor gasoline blending components, and aviation gasoline blending components products supplied in Table 2.
- Line (40) of Table 1: "Total Product Supplied" is equal to total products supplied in Table 2.
- The sum of lines (41) and (42) of Table 1, stocks of "Crude Oil and Lease Condensate (Excluding SPR)" and stocks held by the "Strategic Petroleum Reserve," equals ending stocks of crude oil in Table 2. SPR stocks are reported on Form EIA-90.
- Line (46) of Table 1, stocks of "Refined Products," equals the sum of LPG and ethane and finished petroleum product stocks in Table 2.

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